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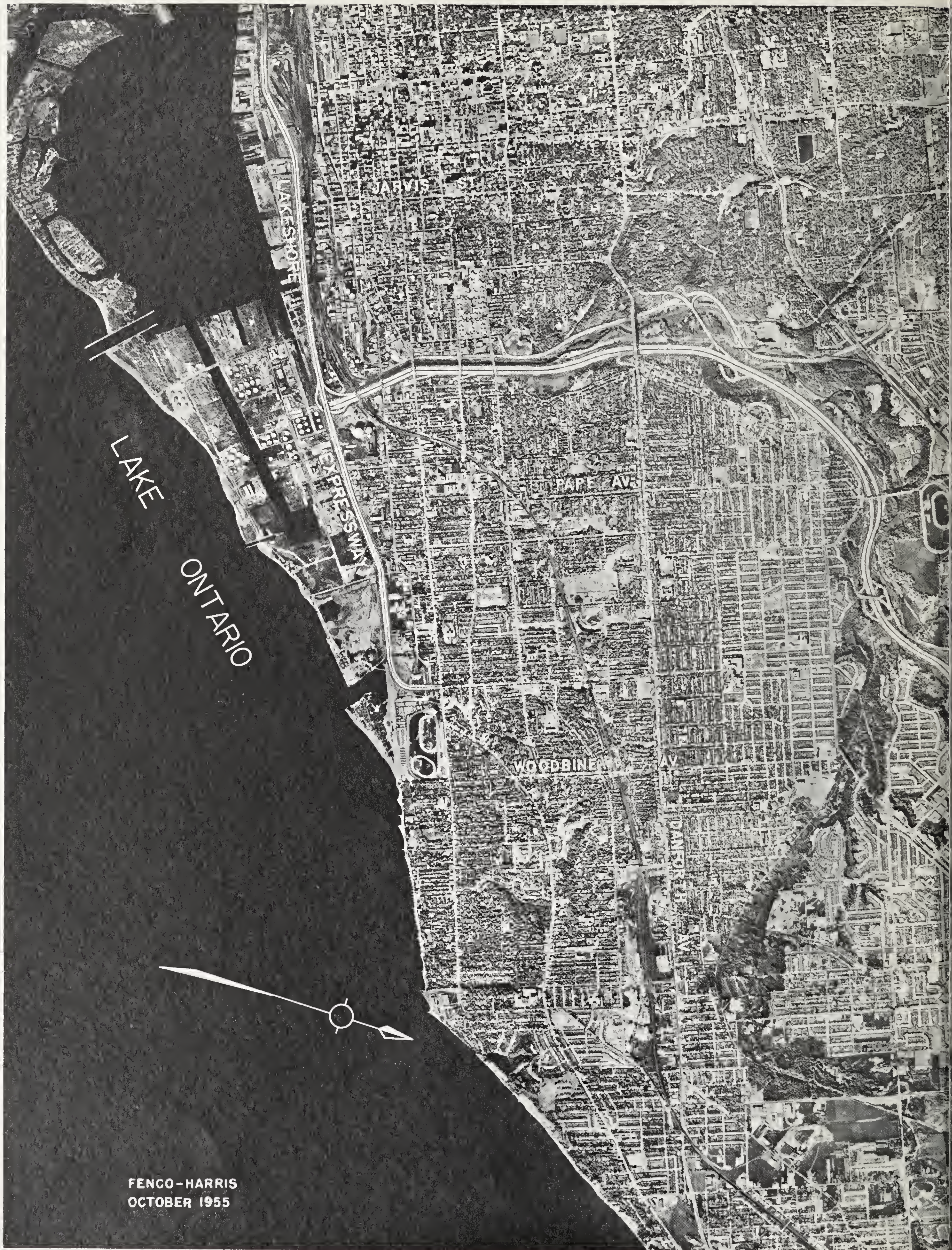

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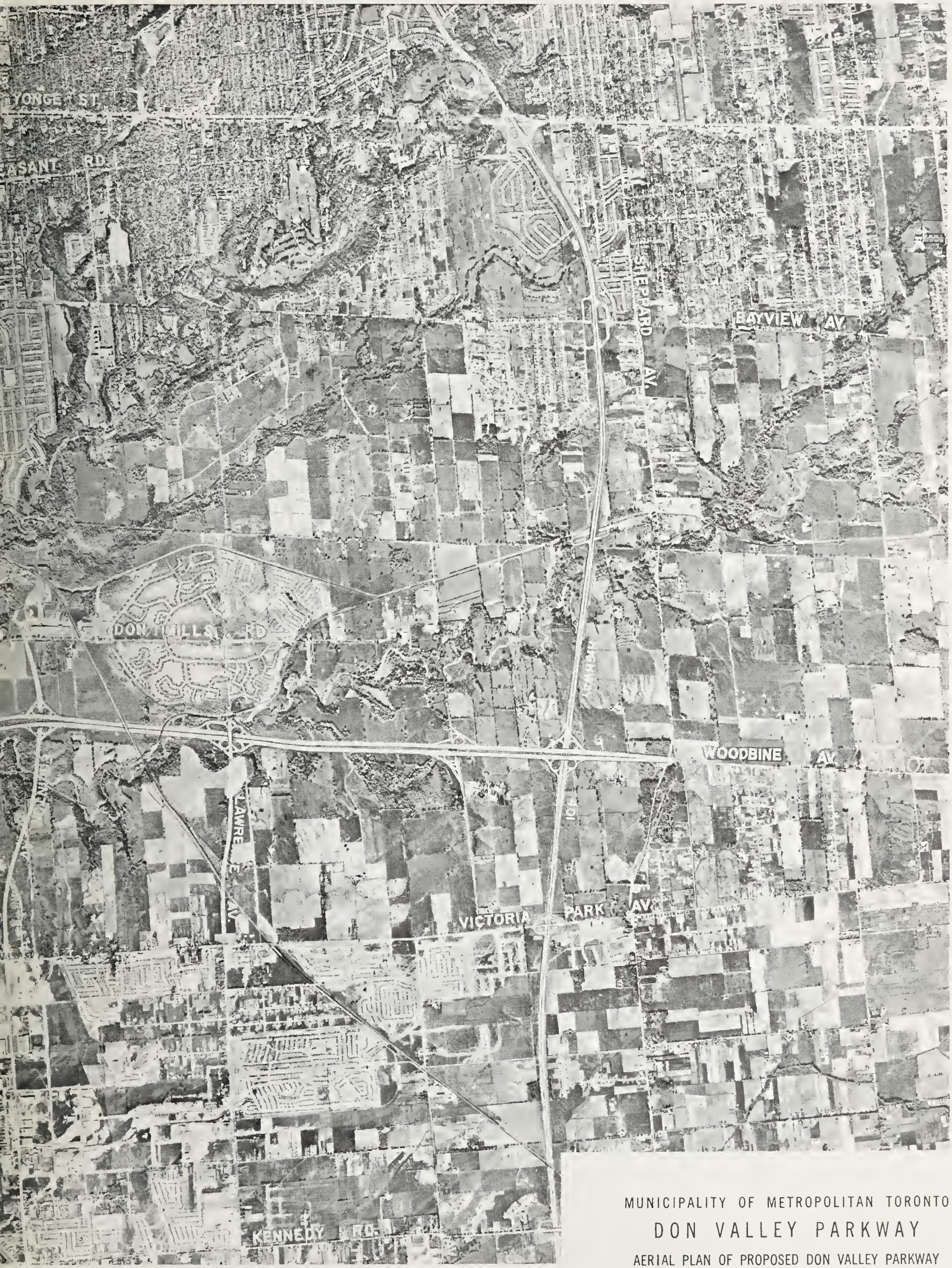

MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

AERIAL PLAN OF PROPOSED DON VALLEY PARKWAY

EXHIBIT 1

FUNCTIONAL REPORT
ON
PROPOSED

DON VALLEY PARKWAY

TO

THE MUNICIPALITY OF METROPOLITAN TORONTO

October 1955

TOWN PLANNING INSTITUTE OF CANADA • INSTITUT D'URBANISME DU CANADA
MEMBER MEMBRE
I. J. J. KOROKNAY

FENCO - HARRIS
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FOUNDATION OF CANADA ENGINEERING
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FREDERIC R. HARRIS
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FOUNDATION OF CANADA ENGINEERING
CORPORATION LIMITED

FREDERIC R. HARRIS OF CANADA LTD.

200 BLOOR STREET EAST
TORONTO 5, ONT.

TELEPHONE WA. 3-1588

October, 1955

Frederick G. Gardiner, Esq., Q.C., Chairman
The Municipality of Metropolitan Toronto
Toronto, Ontario

Dear Sir:

We hereby submit our report and plan for the proposed DON VALLEY PARKWAY as authorized by your Executive Committee and adopted in Council.

A detailed study of the Project was made in accordance with the terms of reference set forth in the agreement. This, however, did not limit our thinking and we feel the broadened scope which developed during the course of the study not only insures the proper function of the Parkway but adequately provides for future requirements.

The DON VALLEY PARKWAY is a vital link in plans to provide the motoring public with facilities it so urgently needs. We feel honoured to have been a party to the realization of these municipal improvements.

Respectfully submitted,

FOUNDATION OF CANADA ENGINEERING
CORPORATION LIMITED

W E Hickey

Winston E. Hickey, Vice-President

FREDERIC R. HARRIS OF CANADA LTD.

E. H. Harlow

Eugene H. Harlow, Vice-President

ACKNOWLEDGMENTS

We wish to express our appreciation for the excellent cooperation of officials of The Municipality of Metropolitan Toronto, as well as from the many other agencies and individuals who have given freely of their time and effort. Listed below are some of the many public bodies whose assistance we acknowledge with sincere thanks:

- Bell Telephone Company of Canada, The
- Canadian National Railways
- Canadian Pacific Railway Company
- City of Toronto
    - City of Toronto Planning Board
    - Parking Authority of Toronto
    - Parks and Recreation Department
    - Real Estate Division
    - Works Department
- Consumers' Gas Company
- Department of Highways of Ontario
- Hydro-Electric Power Commission of Ontario, The
- Imperial Oil Limited
- Municipality of Metropolitan Toronto, The
    - Assessment Department
    - Metropolitan Toronto Planning Board
    - Roads Department
    - Traffic Engineering Department
- Sun-Canadian Pipe Line Company Limited
- Toronto Board of Trade
- Toronto Harbour Commission
- Toronto Hydro-Electric System
- Toronto Transit Commission
- Town of Leaside
- Township of East York
- Township of North York
- Trans-Northern Pipe Line Company

SYNOPSIS

This report covers a study and preliminary design of a limited-access highway in the Don Valley between the proposed Lakeshore Expressway and King's Highway 401, which skirts Toronto on the north.

The need for such a road is evident from the increasing congestion in the downtown area, the absence of through arteries and the rapid expansion of the area and population of the municipality. The Don Valley not only provides an ideal location for such a route with a minimum of damage to industry and housing but also fits well into the pattern of radial highways which can be developed in the next few years to relieve local congestion and improve access to outlying areas. It could not be expected to solve all the present ills of today's traffic congestion, but it would tend to greatly alleviate the situation. Truck traffic from the east presently using Kingston Road, which is taxed beyond its capacity, would be induced to enter the city via King's Highway 401 and the Parkway. The heavily travelled Broadview Avenue-O'Connor Drive route would be relieved appreciably. Obviously these factors would serve to relieve some of the traffic congestion in the east end of Metropolitan Toronto. Similarly other traffic arteries in the Don Valley Parkway tributary area, such as Mt. Pleasant Road, would function more efficiently.

The recommended highway is of the limited-access type with three lanes in each direction and interchanges at principal connecting thoroughfares. It has been designed for safe travel at sixty miles per hour over a route that would be landscaped to blend into the existing expanse of Greenbelt and suburban development. The location, developed after a study of a number of alternative routes, provides the best combination of utility, economy and adjustment to the geometry and topography of the area.

Additional connecting roads are recommended at several locations in order to improve the function of the DON VALLEY PARKWAY and increase the accessibility of the northeast quadrant of the metropolitan area. Toward this end, we recommend that Lawrence Avenue be extended westerly from Victoria Park Avenue to connect with the Parkway, this to be done coincident with the latter's construction.

We also recommend a parallel marginal route west of the southern portion of the Parkway. Traffic analysis indicates the need for the projection of Bayview Avenue southerly, which would serve as the required parallel route.

It is essential that provision for adequate parking adjacent to the core of the city be considered as an integral part of the Parkway scheme. The Bayview Avenue Extension could be readily adapted to the development of commuter parking sites.

The Parkway presents a rather singular situation of limited interference to existing facilities. This in turn permits rapid construction at a number of locations simultaneously without disrupting present traffic flow. With proper scheduling of design, property acquisition and construction it could be completed in 1958.

The total estimated cost, including the additional connecting roads, is $28,674,000.

I—EXISTING CONDITIONS AND TRENDS

Any proposal for a new arterial road for Metropolitan Toronto must be considered in connection with the overall pattern of streets and roads, traffic and transit. In this era of enormous development an awareness of the trends is necessary.

Streets and Roads

The most significant trend to be recognized here is that of the provision of modern highways vs. demand, which has been, in all metropolitan areas, a losing race for many years.

Conditions in the city are very much as they were in 1943, when the City Planning Board, in its presentation of the Master Plan, wrote:

> "The street system of the City of Toronto may best be described as an irregular gridiron pattern of 66 foot streets which are quite inadequate to handle normal traffic requirements and which will become more so in the future."

The uncommon topography of the region — largely of tableland cut up into peninsulas and islands by the virtual moats formed by numerous natural ravines and gullies and a few man-made railway cuts — has always presented difficulties to local roadbuilders and accounts for the lack of continuity of many streets, including principal thoroughfares.

Through traffic is thus forced to take circuitous routes and to pass bottlenecks at infrequent connecting bridges.

The street system, here as elsewhere, has not kept pace with automotive advancement and the increase in the number of vehicles. Very few arteries have been added, while the bulk of improvement has consisted of widening, easing and paving. Elimination of cross traffic and limitation of access so far have been negligible.

To this state of affairs may presently be attributed

— an unnecessarily high accident rate

— an economic loss valued at tens of thousands of man-hours and vehicle-hours each day

— a waste of precious accumulated minutes amounting to weeks and months out of practically every citizen's lifetime

— the unnecessary strain on the public nervous system

A street system is essential and it will not soon be revolutionized, but it can and must be relieved by taking through traffic out of the local neighbourhoods where its presence results in congestion and physical danger.

An indication of the value to Toronto of a modern highway is King's Highway 401, sometimes called the "Toronto By-Pass" but in reality a metropolitan circumferential highway or interceptor, and therefore a means of feeding traffic in and out of the city as well as around it. This modern facility, designed and constructed by the Department of Highways of Ontario, has already demonstrated its worth in that portion opened to traffic. Its full value will be realized when it is finally completed and adequately connected to the city by equally modern expressways.

At the present time there are no limited access highspeed arteries running out of the core in any direction. The comprehensive scheme for superhighways proposed in the 1943 Master Plan was only partially adopted and then allowed to lag, while the population of between 1.25 and 1.5 million forecast for the metropolitan area for the year 1974 arrived in 1954 — just 20 years ahead of schedule! With no sense of disparagement for those earnest planners, whose work will win applause in the years to come, it must be said that they had no way of knowing in 1943 of the dynamic processes on the way — of Canada's industrialization with its centre in Toronto, of the surge of population, of the trend toward the suburbs, of the competition of motor transport with the railways, of the reality of the Seaway, of the opening of the far North, of discoveries and scientific and cultural advances — all working to improve the general standard of living and to give people the means and will to move about!

Following the creation of The Municipality of Metropolitan Toronto two years ago, "Metro", under its responsibility for the establishment of an arterial system of highways, instituted a broad program of improvements, chief among which is the Lakeshore Expressway. This will function as a connection to the easterly terminus of the Queen Elizabeth Highway.

Early this year "Metro" selected the proposed DON VALLEY PARKWAY for study as a practical second major project to follow construction of the Lakeshore Expressway and to link the latter and the city with King's Highway 401. That study is the subject of this report.

Population

While it is desirable to project our trends into the immediate future, it must be recognized, in the light of abundant demonstrations here and elsewhere, that in predicting population too far in advance we soon overtake a point of futility.

For the purpose of this report that point has been assumed as six years from now, or the year 1961. Exhibit 2 shows the metropolitan population growth of the past ten years, with forecast to 1961 indicated by broken lines. IF present forces continue and IF no countercurrent sets in, according to the forecast, the population of Metropolitan Toronto in 1961 will approach 2,000,000.

Assuming the present pattern of growth will continue, the bulk of the population increase will be in the suburbs, reaching well back from the lakeshore in all directions as well as along the lake but outside of the city core.

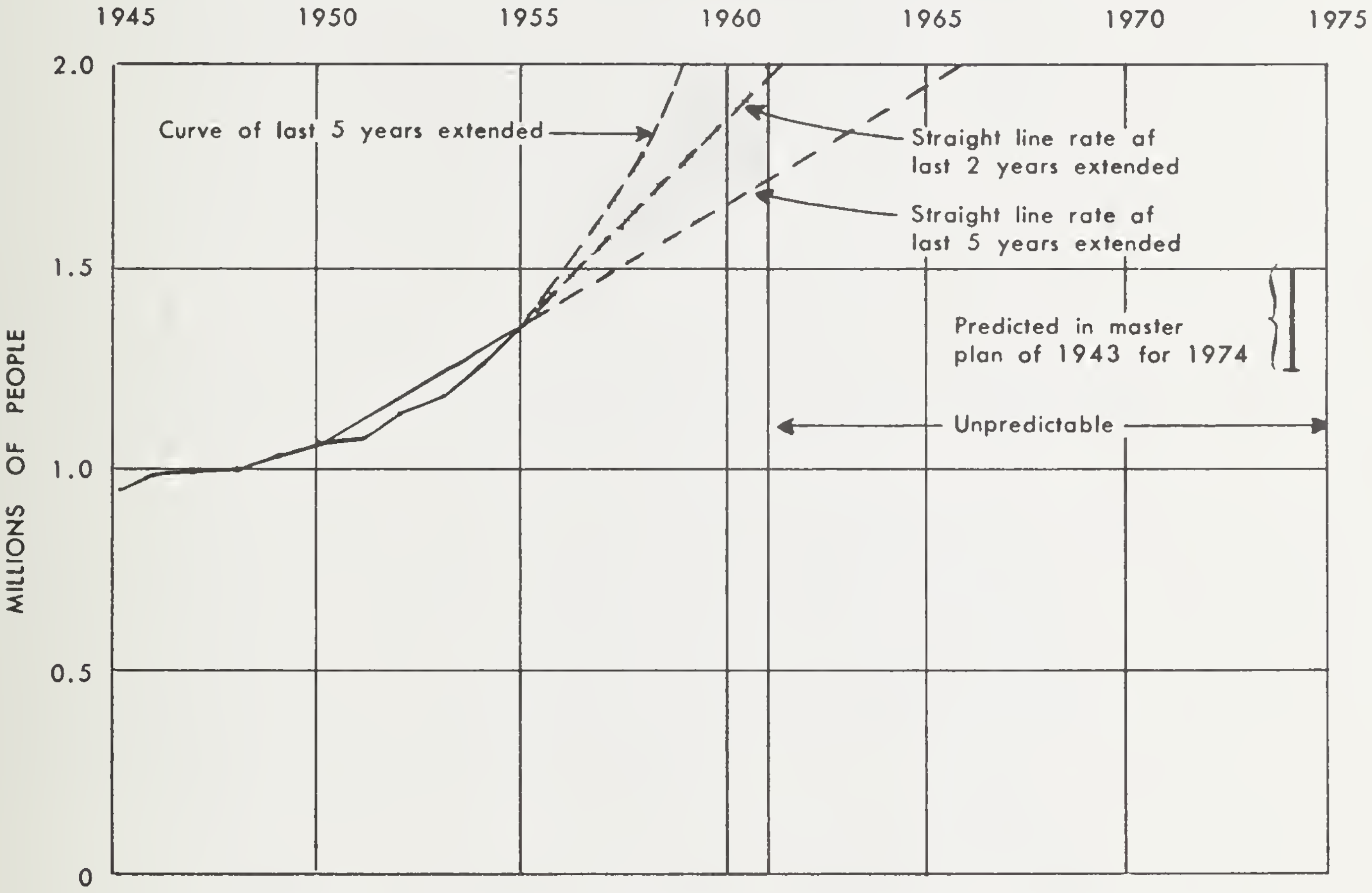


EXHIBIT 2 — POPULATION OF METROPOLITAN TORONTO

The Core of the City

Investigation of the extent and nature of the downtown area which is the major outbound origin and inbound destination leads to the conclusion that this area can be taken with little error as being enclosed within a circle of two mile radius with its centre at Queen and Yonge Streets. This is called the "core of the city" for the purpose of this report.

The core itself rather than its central point must be thought of as the hub of transportation. It contains:

— a population of slightly under 200,000

— the seats of the Provincial, Metropolitan and City governments

— the railroad terminal
— the harbour and shipping
— large hospital groups
— the University of Toronto
— the office and financial district
— light manufacturing
— the wholesale district
— the principal retail establishments
— the large hotels and restaurants
— the theatre, amusement and spectator sports centre
— the Canadian National Exhibition

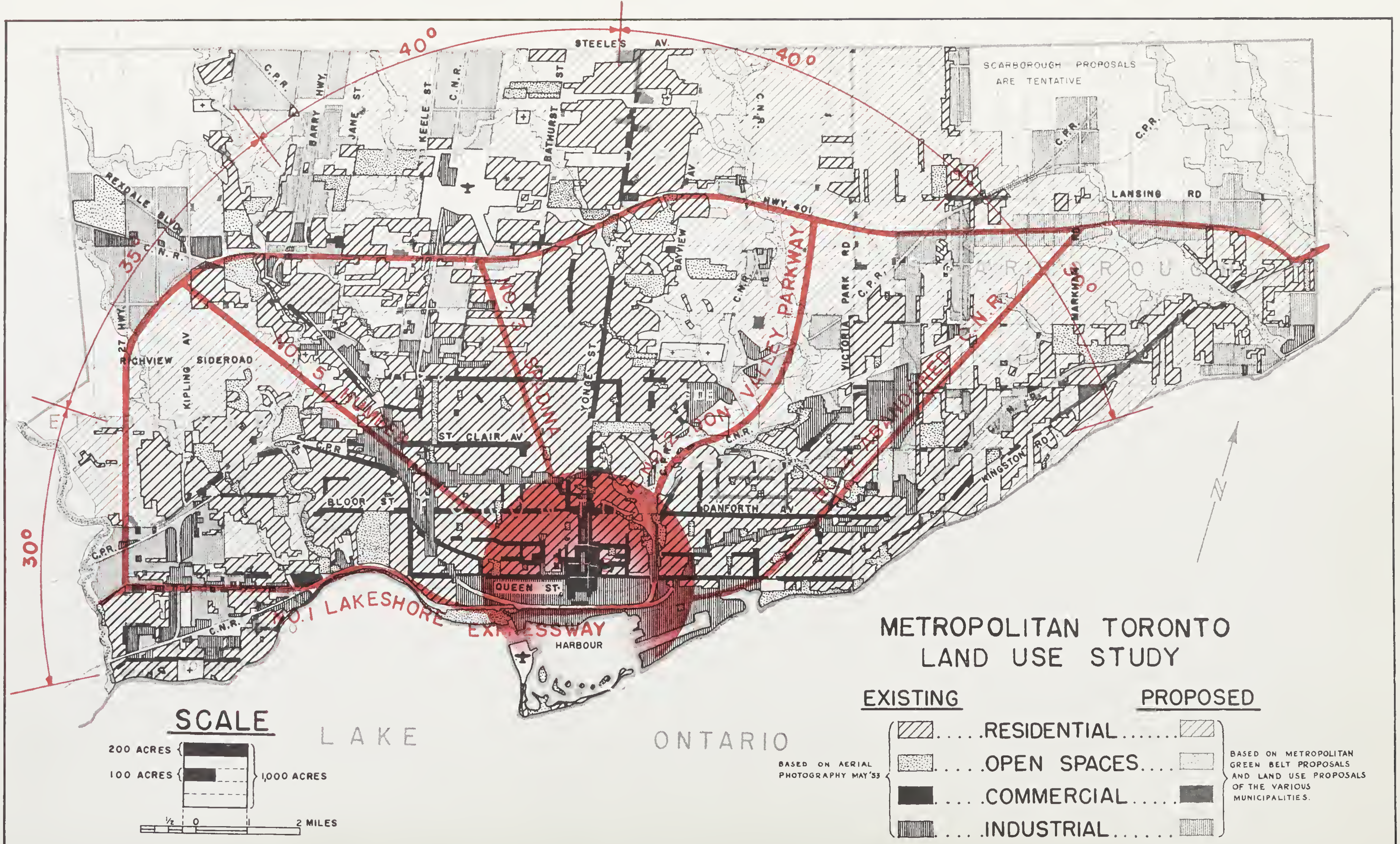
Industry

Existing industry is widely dispersed throughout the metropolitan area, the core itself containing but a moderate percentage.

The shift of industry to the suburbs began in earnest only a few years ago and is continuing at an accelerated rate. New industry is largely locating outside the core of the city, with a considerable percentage along the periphery of the settled area. Many industrial plants are being built in undeveloped areas and until such time as housing facilities are made available the worker movement will be from the city and nearby suburbs.

The construction industry and its labour are for the greater part engaged in many fields of operation outside the core.

EXHIBIT 3



DON VALLEY PARKWAY

RADIAL EXPRESSWAY SYSTEM

FENCO-HARRIS
OCTOBER 1955

II — WHY THE DON VALLEY PARKWAY

The Radial Expressway System

Before designing a building foundation we must know the loads that will be applied to it from the roof down; before we can know these loads we must naturally know the characteristics of the building; principally, its size, shape, character, occupancy, exposure and whether there is a possibility that additional storeys will be required in the future.

This principle has been adapted for use in this investigation. The loads take the form of population served. The additional storeys become the additional services required resulting from metropolitan growth. The problem of limiting this growth however is less under man's control.

Based on our study of the existing conditions and discernable trends, the following assumptions have been made for the metropolitan area for the period after 1958, the earliest that expressways can be provided:

Population:	2,000,000.
Land use, suburban:	Desirable saturation reached in all parts of metropolitan area of a broadly homogeneous combination of residential, commercial, industrial, and recreational areas.
Land use, core:	Larger shipping and transport facilities and related commerce due to Seaway. Fairly stable population but improved housing. Normal development of all other functions.

As a minimum requirement for this future condition we would propose the Radial Expressway System shown on Exhibit 3 which is nothing more than our version of the fuller development of what the Metropolitan Municipality has already started.

TOWN PLANNING INSTITUTE OF CANADA · INSTITUT D'URBANISME DU CANADA
MEMBER MEMBRE
I. J. J. KOROKWAY

Route Location

Highway planners have learned much in the last few years from construction and operation of turnpikes and thruways. It has been amply demonstrated that drivers will cheerfully travel a little further if they can save time and use modern facilities. Consequently a modern highway in the general vicinity of desired travel routes will serve the people well. The DON VALLEY PARKWAY Traffic Analysis of August, 1955, as prepared by the Metropolitan Toronto Planning Board points out the necessity of an express highway in the vicinity of the Don Valley.

The Geometry of the Radial System

Taking the core of the city as a centre, the metropolitan land area lies within radii formed by the lakeshore in each direction making an angle of slightly less than 180°. Knowing the zones of influence of the various proposed radial expressways, it is possible to plot a sector for each one. Exhibit 3 shows the sectors thus plotted, dividing the outlying area clockwise as follows:

	Sector
Lakeshore Expressway	30°
"Humber"	35°
"Spadina"	40°
DON VALLEY PARKWAY	40°
"Abandoned CNR"	30°

What Can Be Expected of the Radial System

1. It should substantially clear the streets and the local neigbourhoods of through traffic in the form of passenger cars, trucks, and express buses thus relieving congestion and improving safety.
2. It should provide the direct access to the suburbs and outlying districts which the city must have if it is to remain the hub of an area of two million people.
3. It should provide the suburban population and outlying industry with the time-saving access they will need to the core of the city.
4. It would provide the principal egress from the city in the event of evacuation.
5. It would provide a system of routes for express buses.
6. It should make all of Metropolitan Toronto extremely attractive to industry.
7. It would increase employment opportunities.
8. It would improve land values.
9. It should be a profitable capital investment, rather than an expense, to the overall economy.

What Cannot Be Expected of the Radial System

1. It would not serve people in many "close-in" areas in "going to town." It will serve all of them in getting out of town.
2. It should not serve short-haul traffic along the main-stem sections within the city core. If it were allowed to do so, its primary effectiveness would disappear.

The DON VALLEY PARKWAY as a Radial Expressway

There is a strong likelihood that the Lakeshore Expressway and the DON VALLEY PARKWAY will be completed simultaneously as the first members of a radial system.

Exhibit 4 illustrates an interim future expressway system made up of only these two members, plus King's Highway 401, which should be fully opened to traffic before that time. This figure shows how far the motorist could advance from the centre of the core via the DON VALLEY PARKWAY and via the Lakeshore Expressway in thirty minutes travel as compared with his progress using existing routes.

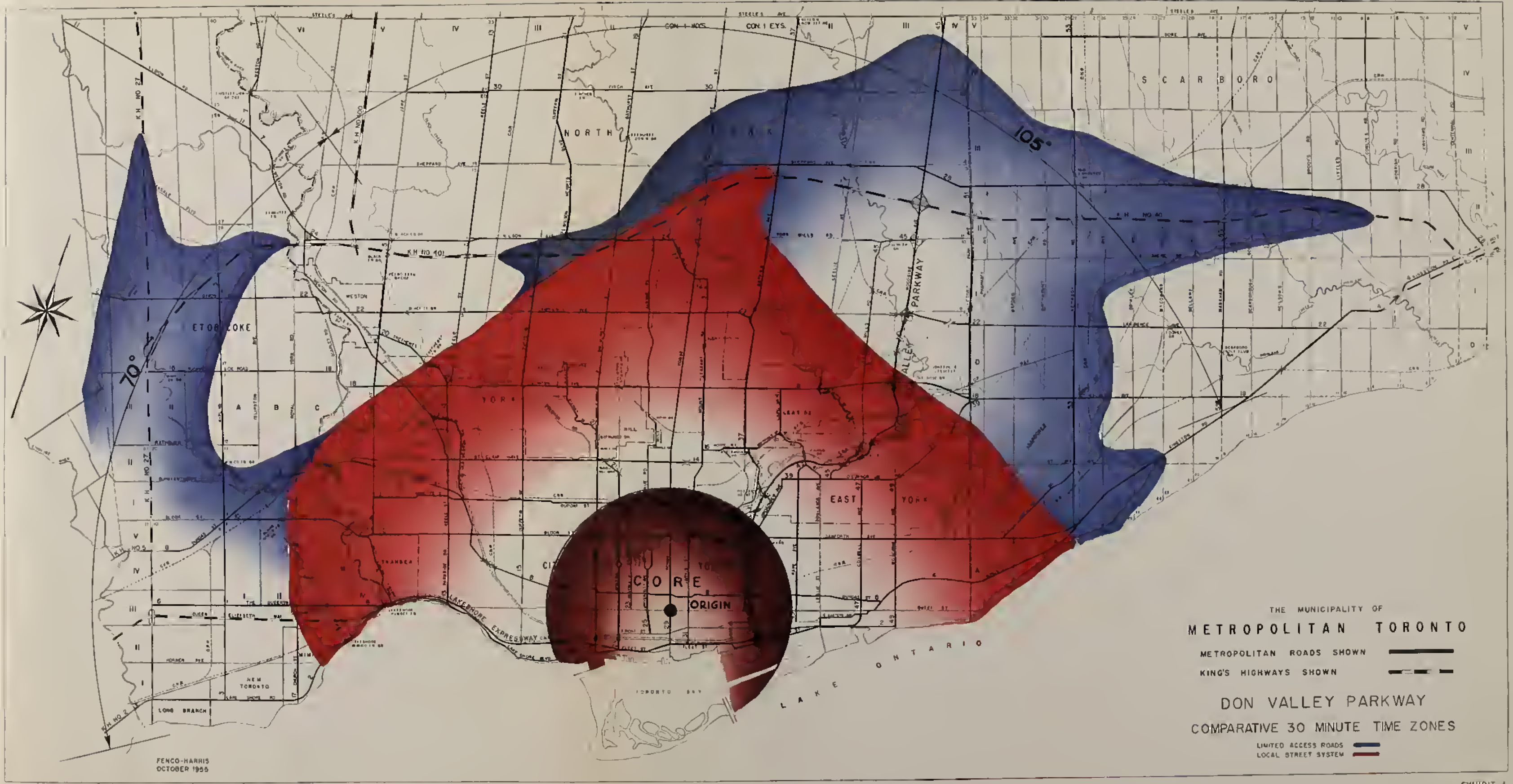
Exhibit 5 indicates the comparison of time of travel between the assumed origin at Queen and Yonge Streets and outlying zones before and after completion of the DON VALLEY PARKWAY, but with the Lakeshore Expressway already built.

Getting back to our geometry, the Lakeshore Expressway thus would have a zone of influence of 70° on the west. The DON VALLEY PARKWAY would have a zone of influence of 105° consisting of its thirty minute zone plus everything to the northeast beyond King's Highway 401.

Until other expressways are built, the DON VALLEY PARKWAY would therefore be the quickest, safest and most comfortable way to town from half of North York, most of Scarborough and all of Markham and Pickering Townships.

It would be the Eastern Gateway to the city.

This does not mean that all traffic originating in these areas and bound for the core would choose the Parkway route, but there would be a benefit available to those who would use it, and to those using the existing streets whose traffic load would be alleviated.



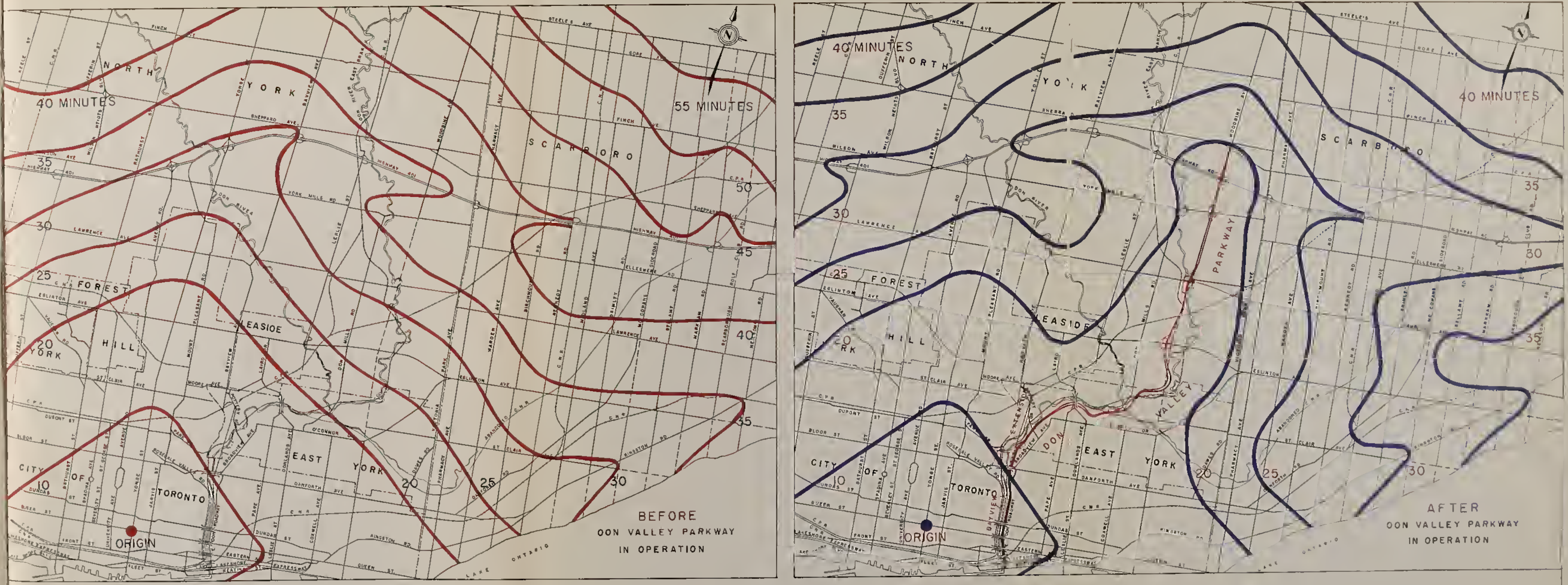
THE MUNICIPALITY OF

METROPOLITAN TORONTO

DON VALLEY PARKWAY

COMPARATIVE 30 MINUTE TIME ZONES

EXHIBIT 4



SCALE IN MILES

0.5 0

SPEED OF TRAVEL IS BASED ON
ULTIMATE BUILT UP AREA

FENCO · HARRIS, TORONTO
OCTOBER-1955

MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

TIME COMPARISON CHART

EXHIBIT 5

III—TIMING

The Fourth Dimension

It has been the general experience in large expressway work that time is dealt with unrealistically at the beginning of the job, but that it soon asserts itself as the controlling 4th dimension of every phase of the project. The study leading to this report revealed that time will be a costly factor if it is not considered in planning the project.

The Schedule

As in any construction project a low cost will be realized only by efficient use of available construction labour and equipment, by avoiding overdemand, overtime, out of season work and work that does not follow a logical sequence. Intelligent scheduling will allow for the incompressible time factors such as preparation of contract drawings and specifications, acquisition of property, and the negotiation of agreements with public bodies, railways, and utilities — all of which can be performed out of the most favourable construction season. Allowance must be made for doing this work in advance, and it could reasonably be carried out during the Fall and Winter to take advantage of commencing construction the following Spring.

Early Construction of the DON VALLEY PARKWAY

Exhibit 4 shows that the Parkway would dominate 105° of the total Toronto sector. The Lakeshore Expressway to the west is already scheduled, so that sector will be relieved shortly. The next improvement must lie in the unrelieved north and east. Of three proposed radials shown on Exhibit 3 "Spadina" would serve the Yonge Street stem but not Scarborough, nor the eastern gate. The "Abandoned C.N.R." would serve the latter very well but hardly Yonge Street. The DON VALLEY PARKWAY would serve the full 105° to some extent and if constructed first, would act as an effective by-pass while the others are under construction.

The Parkway would cost much less than any of the other radials. It is then conceivable that funds for its construction could be made available sooner than the larger amounts.

The Parkway could be finished at least a year earlier than the others because its site problems are relatively simple and it would create no serious interference with the life of the community.

IV — LOCATION

The Ruling Consideration

The public interest should be the ruling consideration for route location and could be said to be composed of elements of UTILITY, ECONOMY and GEOMETRY, taken in proper proportions along each section of the line. The consultant's job is to balance these elements. If utility alone were to rule the result would be a grandiose scheme which would not justify the cost; if economy ruled we would have something quite unsatisfactory; if geometry were the governing factor we would have a line straight as a taut string from end to end, without regard to obstacles in its way.

Utility

The southern terminus is designed to provide adequate access and egress at the Lakeshore Expressway and the Harbour.

The northern terminus of the DON VALLEY PARKWAY is located at Sheppard and Woodbine Avenues, one half mile north of King's Highway 401. A full interchange is provided at the latter. Sheppard Avenue and the Lansing Cutoff will serve as additional northerly interceptors and distributors.

The Parkway is located where suitable interchanges can be provided at the intermediate connections. The design of these connections to the Parkway will accommodate the anticipated traffic movements as shown on Exhibit 6. The August, 1955, traffic analysis of the Don Valley tributary area as prepared by the Metropolitan Toronto Planning Board was of primary assistance in this regard.

Economy

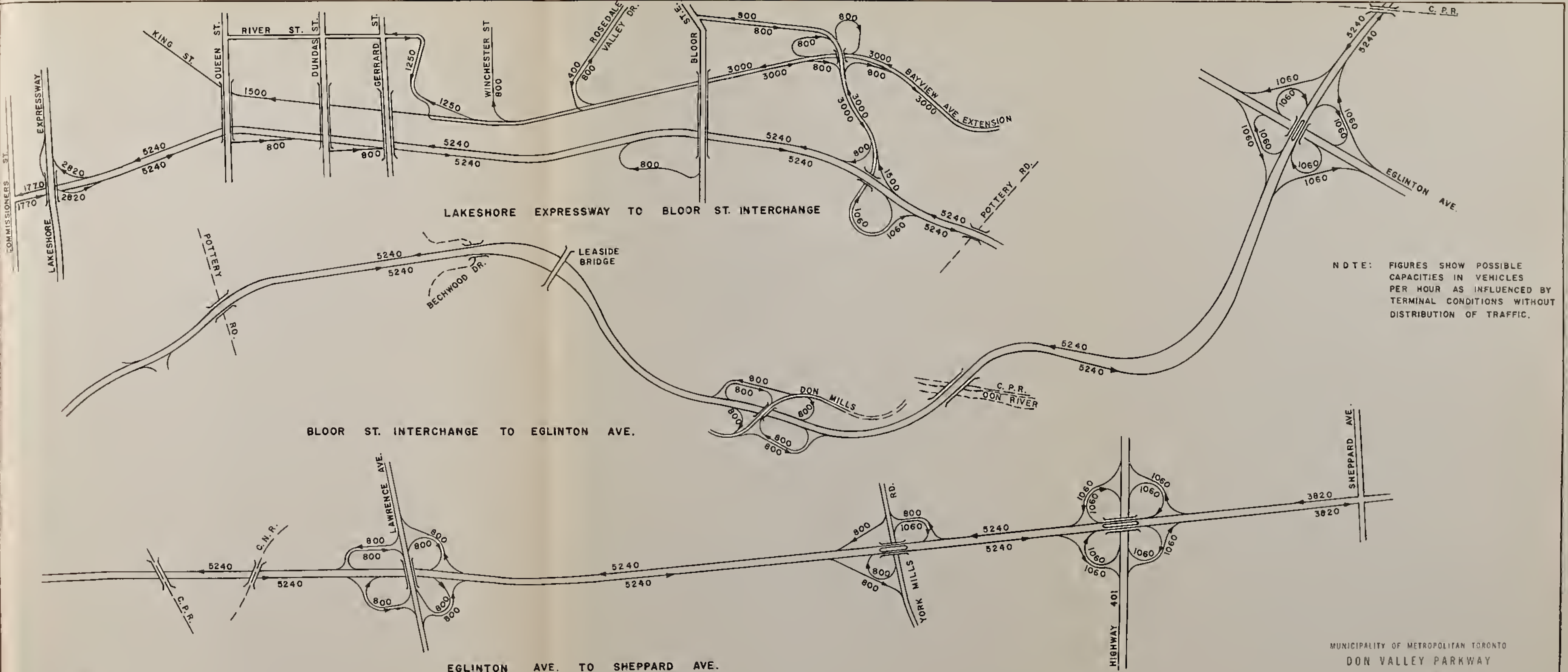
The route is located to underpass the Toronto Viaduct, Queen, Dundas, and Gerrard Streets, the Prince Edward Viaduct and Leaside Bridge utilizing the existing structures. The Bloor Street interchange ramps underpass the existing C.P.R. trestle over the Don River. If equivalent grade separations had to be constructed, they would cost as much as the estimated cost of the project as proposed.

The route is located on public lands where possible thus minimizing the expropriation of private property. Greenbelt land has been used for right-of-way in preference to acreage which can be commercially developed, and attention has been given to avoid isolating valuable properties.

Geometry

The most direct line has been provided consistent with economy. Elevations have been kept above maximum flood levels throughout. Adjustments without the sacrifice of standard curvature have been made in numerous locations to avoid interferences with utilities, the railways and the river.

A relief map would be required for the full appreciation of the three-dimensional problems.



LAKESHORE EXPRESSWAY TO BLOOR ST. INTERCHANGE

BLOOR ST. INTERCHANGE TO EGLINTON AVE.

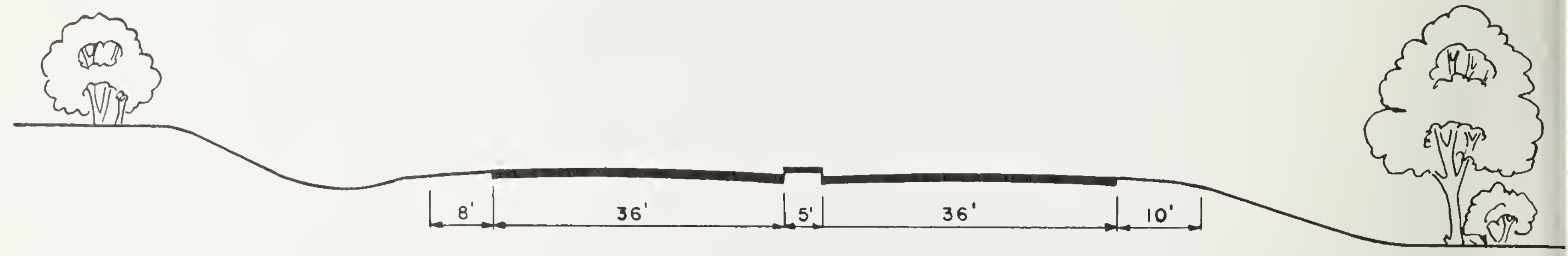
EGLINTON AVE. TO SHEPPARD AVE.

NOTE: FIGURES SHOW POSSIBLE CAPACITIES IN VEHICLES PER HOUR AS INFLUENCED BY TERMINAL CONDITIONS WITHOUT DISTRIBUTION OF TRAFFIC.

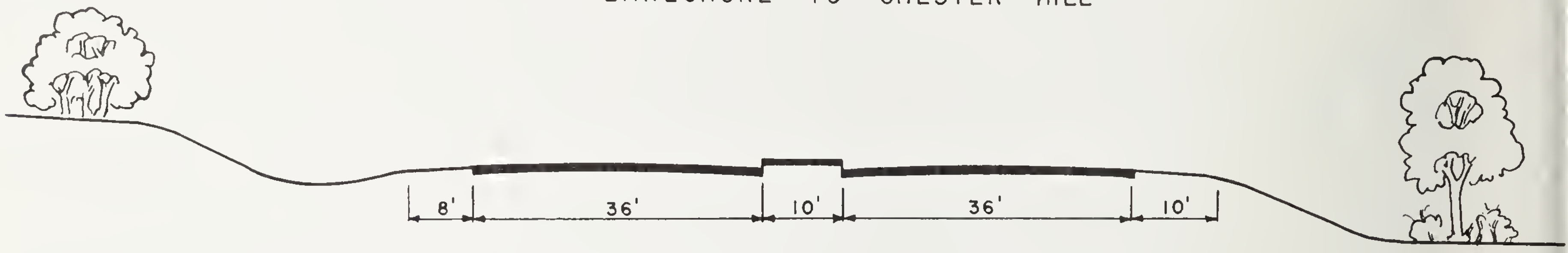
MUNICIPALITY OF METROPOLITAN TORONTO
DON VALLEY PARKWAY
TRAFFIC CAPACITIES

FENCO-HARRIS, TORONTO
OCTOBER 1955

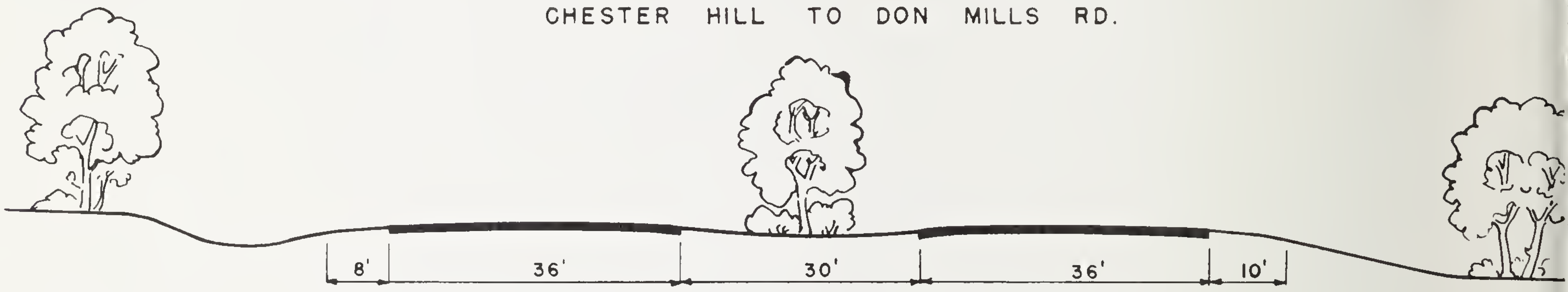
EXHIBIT 6



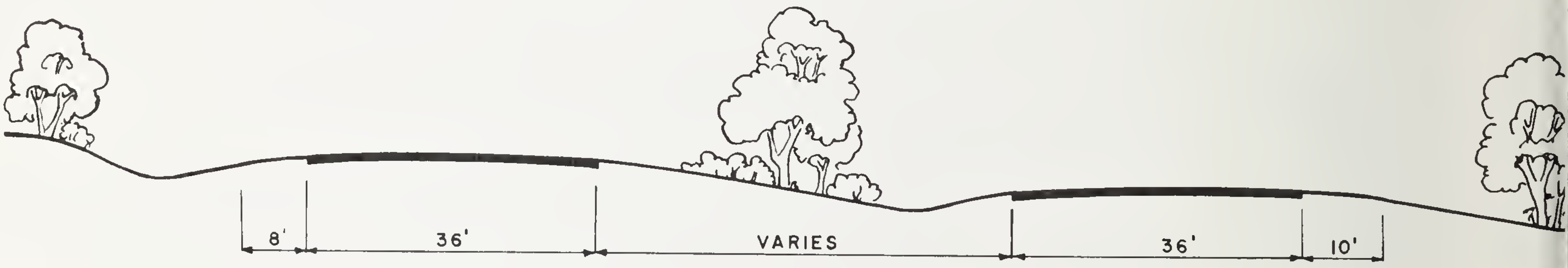
LAKESHORE TO CHESTER HILL



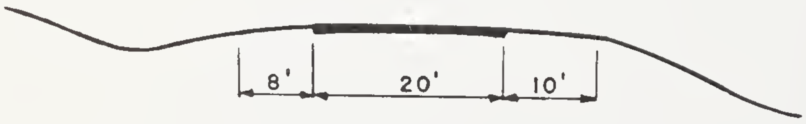
CHESTER HILL TO DON MILLS RD.



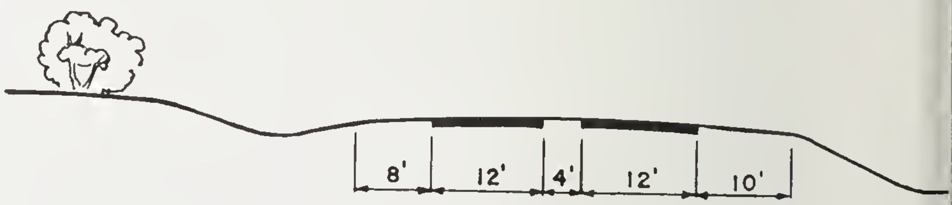
NORTH OF LAWRENCE AVE.



SEPARATED ROADWAYS



1-WAY RAMP



2-WAY RAMP

MUNICIPALITY OF METROPOLITAN TORONTO
DON VALLEY PARKWAY
TYPICAL SECTIONS

FENCO-HARRIS, TORONTO
OCTOBER 1955

EXHIBIT 7

V — DESIGN

Highway Type

Divided; in part by median strip, elsewhere by park land. Fully controlled access. Complete grade separation.

Roadway Width

Main roadways 3-12 foot lanes each direction from Lakeshore Expressway to King's Highway 401; 2-12 foot lanes each direction north of King's Highway 401.

Design Speed

On Parkway	60 MPH
On Ramps	variable

Horizontal Alignment

Curvature, Parkway	4° maximum
Curvature, Ramps	100′ radius minimum 200′ radius where practical
Length of Curve, Parkway	500′ minimum

Vertical Alignment

Parkway Grade	4% maximum
Ramp Grade	5% maximum downgrade 7% maximum upgrade

Sight Distance

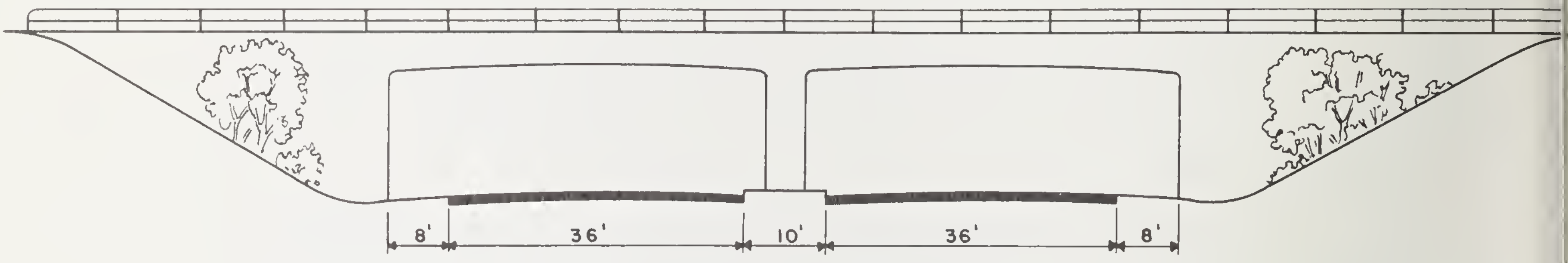
Horizontal and Vertical non-passing	475 feet

Superelevation

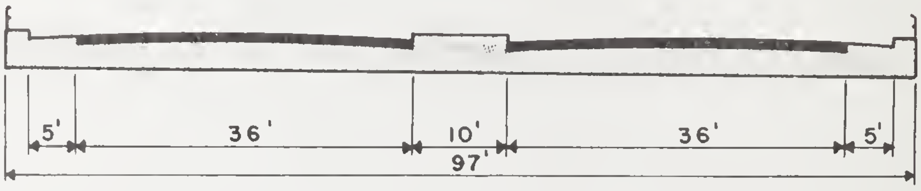
On curvature less than 4000′ radius	1″/ft. maximum

Slope Grading

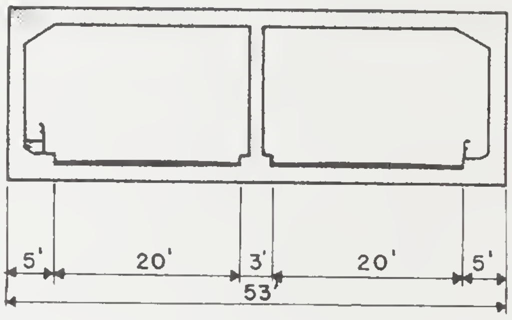
Fill	0′ — 5′	6:1
	5′ — 12′	4:1
	12′ — 50′	2:1
	50′ — up	1½:1
Cut	0′ — 3′	6:1
	3′ — 6′	4:1
	6′ — 25′	3:1
	25′ — up	2:1



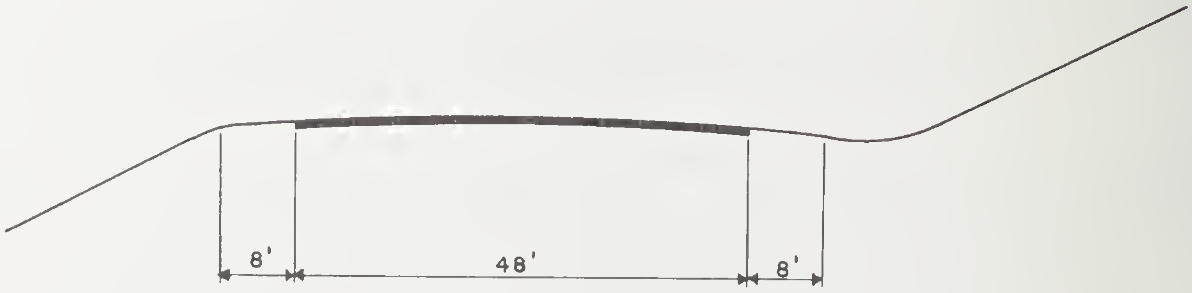
PARKWAY UNDERPASS



PARKWAY OVERPASS



KEATING STREET SUBWAY



BAYVIEW AVE. EXTENSION

MUNICIPALITY OF METROPOLITAN TORONTO
DON VALLEY PARKWAY
TYPICAL SECTIONS

FENCO-HARRIS, TORONTO
OCTOBER 1955

EXHIBIT 8

All slopes to be rounded and molded to existing ravines and tableland to provide Parkway character. Low crib walls to be constructed in various places in lieu of cutting slopes where retention of existing stands of trees is desirable.

Pavement

Extra heavy-duty flexible type including base and sub-base designed to carry heaviest truck loads. Asphaltic concrete surface. Permeable materials below base with sub-drainage to be provided to assure stability and freedom from adverse frost action.

Structures

Bridges of the Ontario Department of Highways type rigid-frame concrete where practical. Other bridges of structural steel on reinforced concrete abutments and piers. Reinforced concrete deck.

Drainage

Flooding of the Don Valley was of major consideration in this study. The Parkway is designed to provide continuous service even though local roads may be impassable due to floods.

From our studies it is apparent that as the Municipality expands and as a result develops areas within the Don Valley drainage area, the possibility of flash flooding is going to increase.

Although a complete hydraulic study of the Don River is beyond the scope of this report, the necessity of detailed investigations should be considered.

Right-of-Way

Width variable to contain slopes and extend slightly beyond in order to control drainage and for landscaping.

Landscaping

Full parkway character fitted to existing landscape.

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VI—ADDITIONAL CONNECTING ROADS

Exhibit 9 should be observed in conjunction with the following descriptions.

Lakeshore Expressway Connection

It is recommended that the Lakeshore Expressway be designed to accommodate 4 lanes in each direction for that portion to the west of the DON VALLEY PARKWAY as far as the first subsequent points of access and egress to city streets.

Bayview Avenue Extension

The August, 1955, traffic analysis for the DON VALLEY PARKWAY indicates a demand for a projection of Bayview Avenue southerly from its present terminus. The solution offered on Exhibit 9 provides several benefits outlined as follows:

1. Bayview Avenue can be connected to the DON VALLEY PARKWAY so that southbound access to the latter is effected south of the Bloor Street egress, thus exchanging traffic without overtaxing the capacity of the Parkway.
2. Bayview Avenue traffic desiring access to the core of the city can proceed to points south of Bloor Street via connections to major east-west routes quickly and efficiently.
3. DON VALLEY PARKWAY traffic desiring egress to points between Bloor Street and the Lakeshore can transfer to Bayview and proceed southward to their destinations via these same connections to major east-west routes.
4. The Bayview Extension would serve immeasurably in relieving the overtaxed Mt. Pleasant Road.

Based on the capacity of Bayview Avenue and the anticipated traffic movement a 4 lane two-way roadway is recommended between Moore Avenue and Gerrard Street. One lane, southbound only, is recommended between Gerrard and King Streets.

Any other alternatives for dispersion of Parkway traffic would require the construction of expensive overpasses across the Don and the adjacent railways. On the other hand, a simple connection of Bayview into the Parkway would result in traffic that would overtax Parkway capacity, particularly in distribution of traffic at the southerly terminus. For these reasons, the Bayview Avenue Extension is recommended.

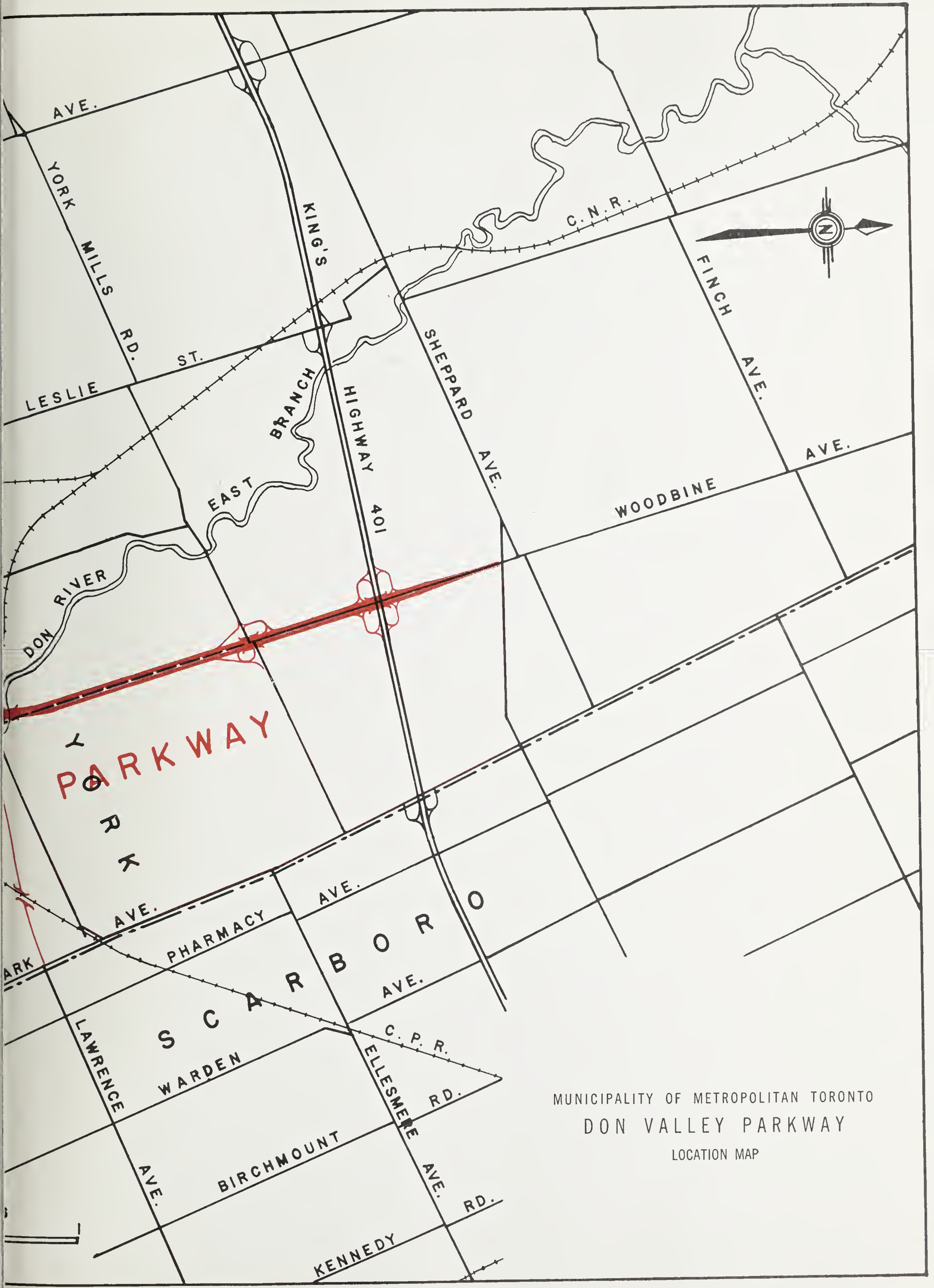
St. Clair Avenue East

Traffic studies have indicated that the demand for an access from St. Clair Avenue East appears insufficient to justify the extremely high cost of constructing such a connection. We do not recommend this connection.

Lawrence Avenue Improvement

It is recommended that Lawrence Avenue be produced from Victoria Park Road westerly, crossing the valley of the East Branch of the Don River and connecting with Lawrence Avenue on the west side of the valley, coincident with the construction of the Parkway. The full cloverleaf interchanging Lawrence Avenue with the Parkway is recommended.

It may be well to realize that connections to the Parkway from the West can be made with a minor realignment of existing Lawrence Avenue if the extension of this artery were to be deferred beyond the completion of the Parkway. This is shown in detail with broken lines on Exhibit 17.



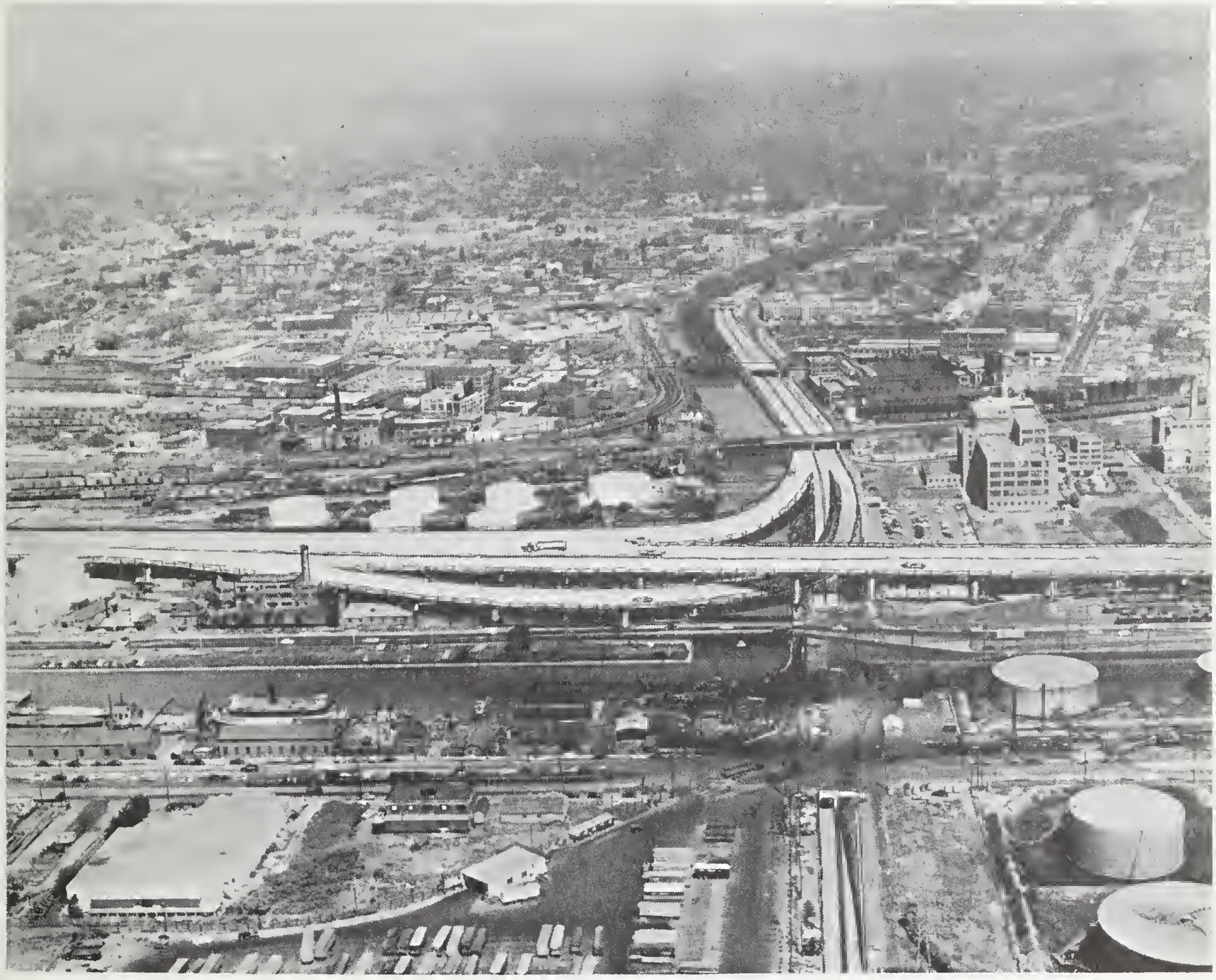
MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

LOCATION MAP

EXHIBIT 9

VII—DESCRIPTION OF ALIGNMENT
DON VALLEY PARKWAY



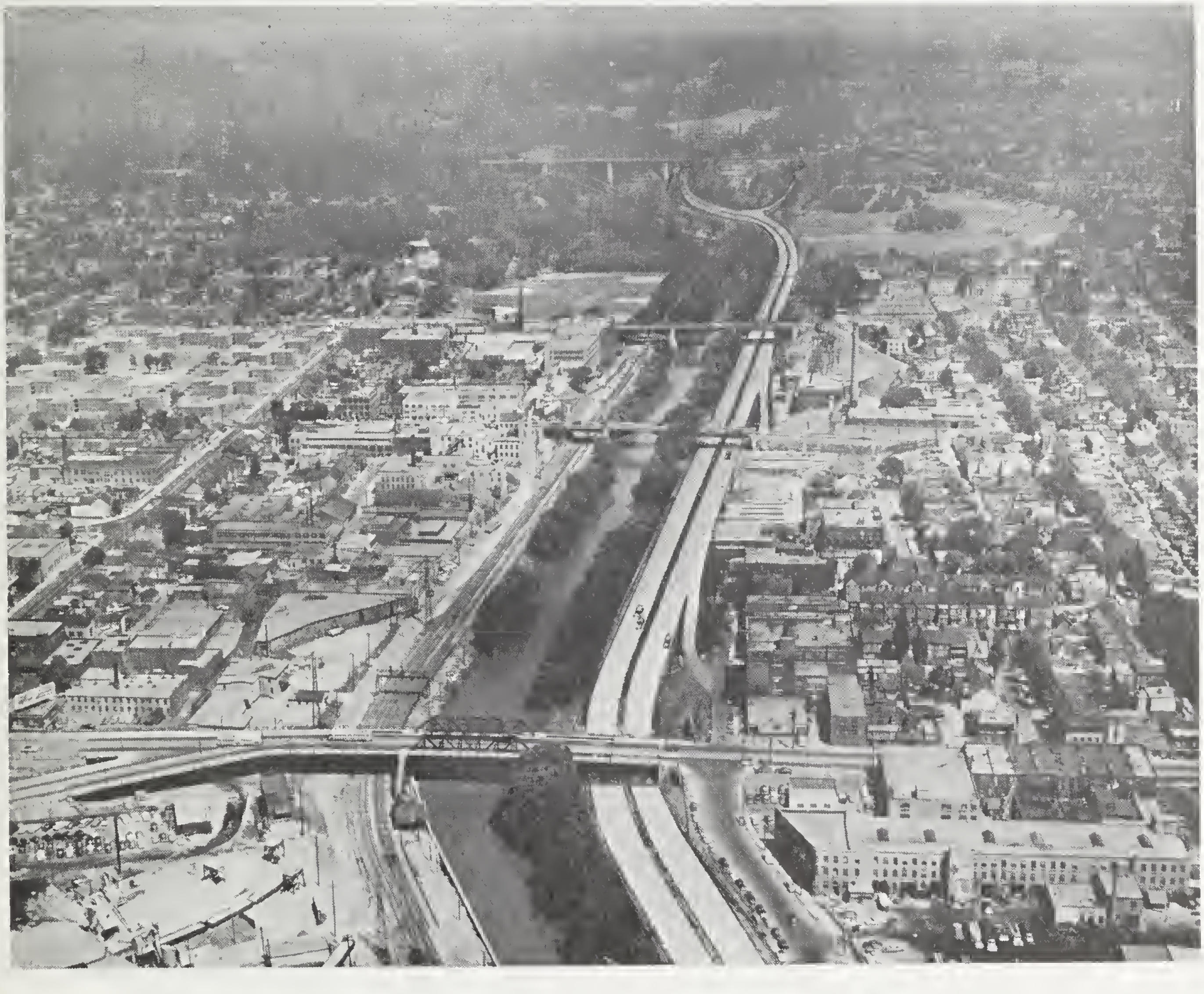
1. LAKESHORE EXPRESSWAY CONNECTION

Lakeshore Expressway Connection

The DON VALLEY PARKWAY originates at the proposed Lakeshore Expressway. For convenience zero chainage for the main line has been taken to be the centre line of Keating Street east of the Don Channel. Three lanes in each direction are provided to connect to the proposed Lakeshore Expressway, interchanging southbound traffic to the west and eastbound traffic to the north. Additional movements at Commissioners Street are served by one lane in each direction via the proposed subway under Keating Street. A minor realignment of the Don River under the southbound access ramp to the proposed Lakeshore Expressway effects a substantial saving in the cost of this river span. Access to Lever Brothers' property can be provided via Keating Street using the existing Don Roadway adjacent to the depressed lanes of the Parkway where they enter the Keating Street subway, and thence along the border of the northbound access ramp from the Expressway to the Parkway.

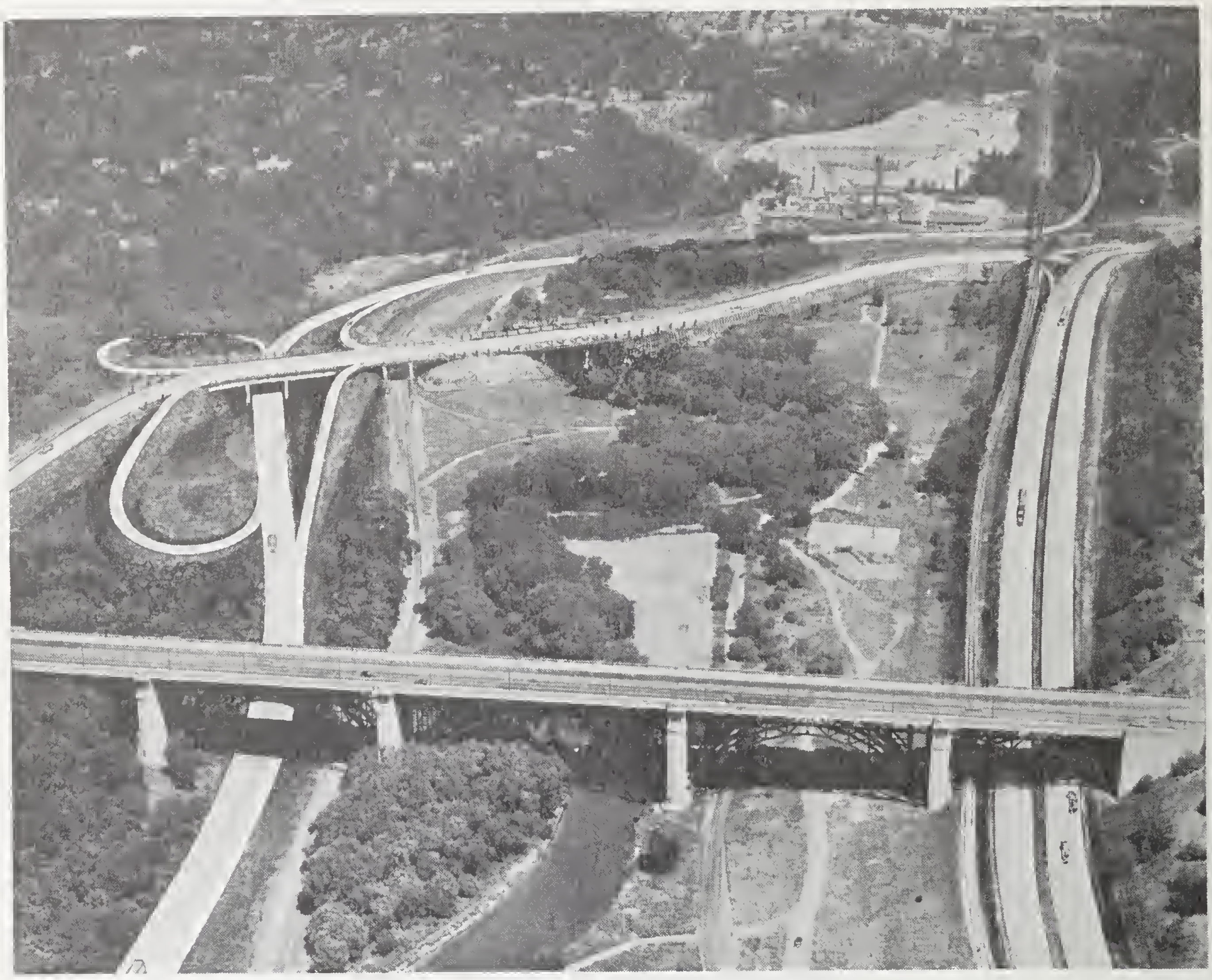
Toronto Viaduct to Prince Edward Viaduct

A six lane roadway consisting of three lanes in each direction, separated by a raised 5 foot mall, proceeds in a northerly direction underpassing the Toronto Viaduct south of Eastern Avenue and occupying the existing Don Roadway. The Parkway then underpasses the bridge proposed by the City of Toronto at Eastern Avenue and the existing structures at Queen, Dundas and Gerrard Streets. This necessitates minor alterations to the Queen Street structure in order to accommodate the proposed six lanes at the maximum allowable curvature as set forth in the design criteria. Northbound access ramps are provided at Queen and Dundas Streets utilizing existing Davies Street at Queen Street and construction of a ramp at Dundas Street just west of the existing incinerator. The route described north of Eastern Avenue to north of Gerrard Street requires removal of the existing C.P.R. storage sidings.



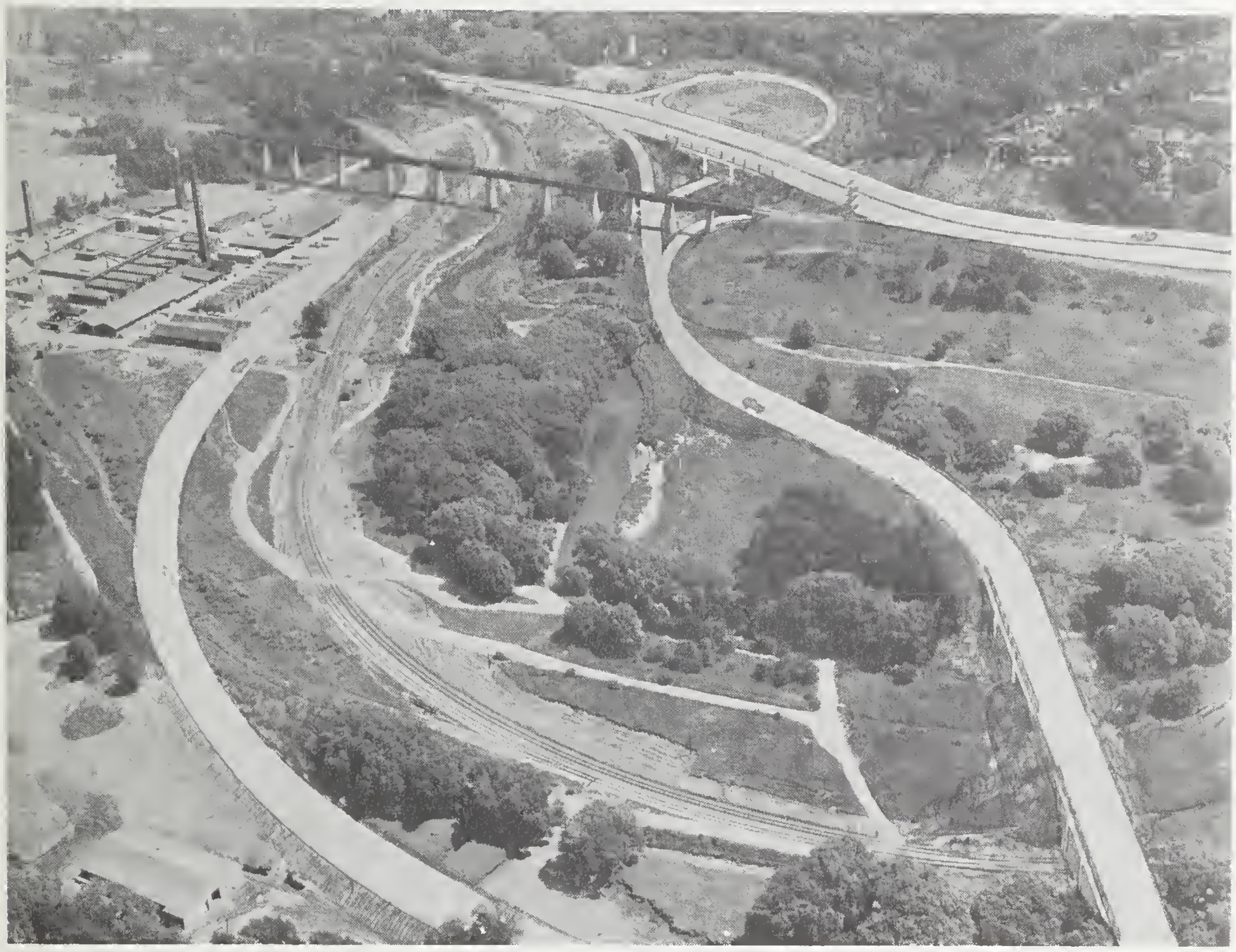
2. QUEEN STREET TO PRINCE EDWARD VIADUCT

The proposed location minimizes the damage to Riverdale Park east of the Don River by keeping well to the west of this recreational facility. A pedestrian overpass is provided linking the East and West portions of the Park. It is proposed to close Royal Drive to through traffic, and use it as a one-way northbound



3. PRINCE EDWARD VIADUCT TO CHESTER HILL

access to the Parkway. Only right turns from Prince Edward Viaduct would be permitted to enter this access road. The route continues northerly, west of Viaduct Park and east of the C.P.R. roadbed passing under the Prince Edward Viaduct. This location necessitates a minor realignment of the C.P.R. from a point just south of the viaduct to a point south of the single track trestle crossing the valley.

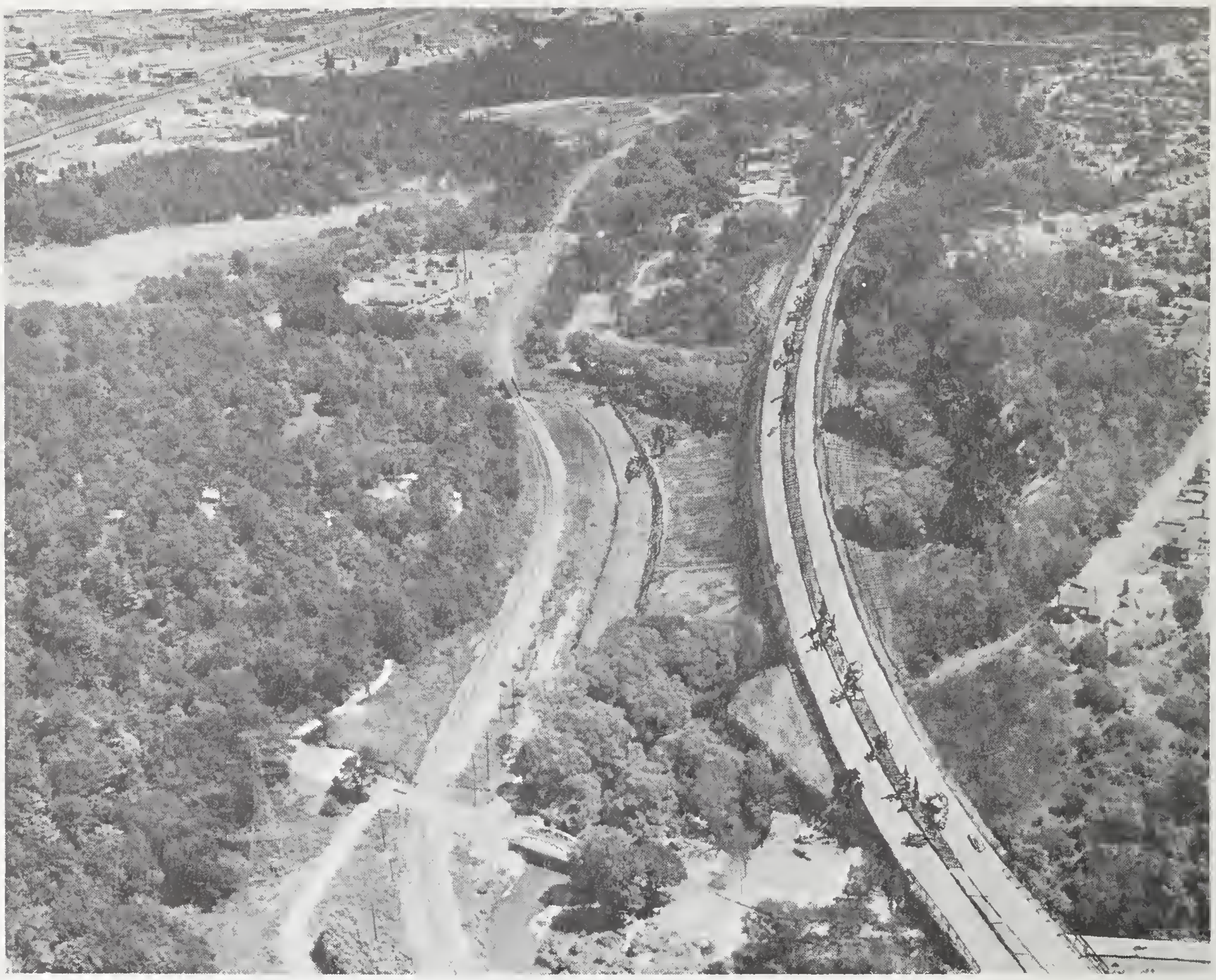


4. BLOOR STREET CONNECTION

Prince Edward Viaduct to Bloor Street Interchange

The Parkway proceeds, rising along the east bank of the valley, to the vicinity of Chester Hill Road, and then descends to a point some 500 feet north, where a trumpet type interchange provides all movements to and from Bloor Street. This is accomplished by moving the C.N.R. roadbed and realigning the Don River. See Exhibit 12.

The ramp providing access and egress at Bloor Street crosses over the relocated river channel and C.P.R. tracks where they intersect Park Drive Reservation. The ramp continues, interchanges with the Bayview Avenue Extension and rises along the sidehill to Castle Frank Road. Here traffic can be directed to Bloor Street East or West, or dispersed via Castle Frank Road to Sherbourne Street and thence points south.

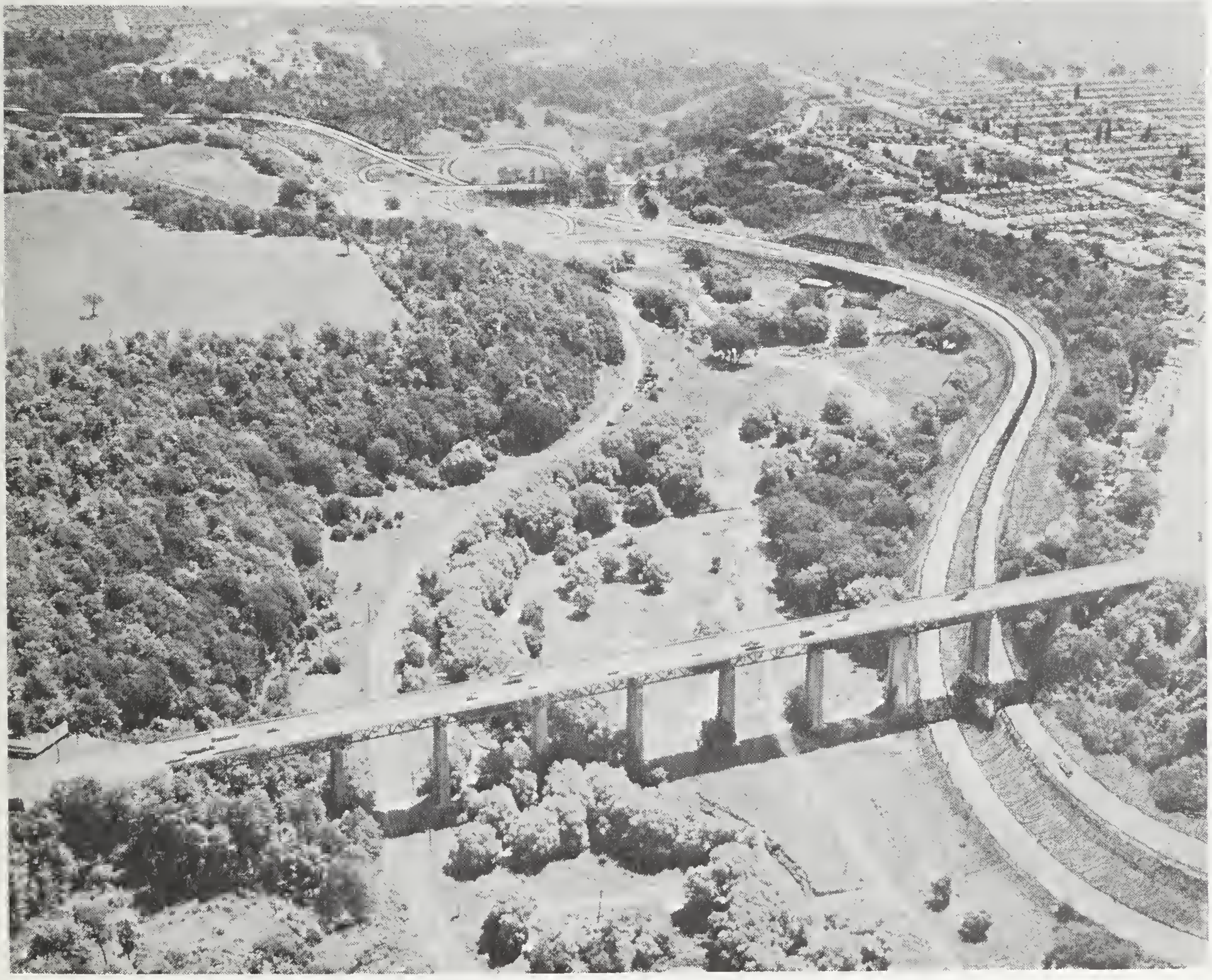


5. POTTERY ROAD TO LEASIDE VIADUCT

Bloor Street Interchange to Don Mills Road

The line continues north from the Bloor Street interchange with the mall widening to ten feet. It bears northeasterly and passes south of the Don Valley Paper Company. North and Southbound lanes separate at the Beechwood Drive overpass and proceed easterly under the Leaside Bridge. Just north of Pottery Road the Don River is relocated as shown on Exhibit 12. Pottery Road and Beechwood Drive are realigned to facilitate the Parkway overpasses at these locations.

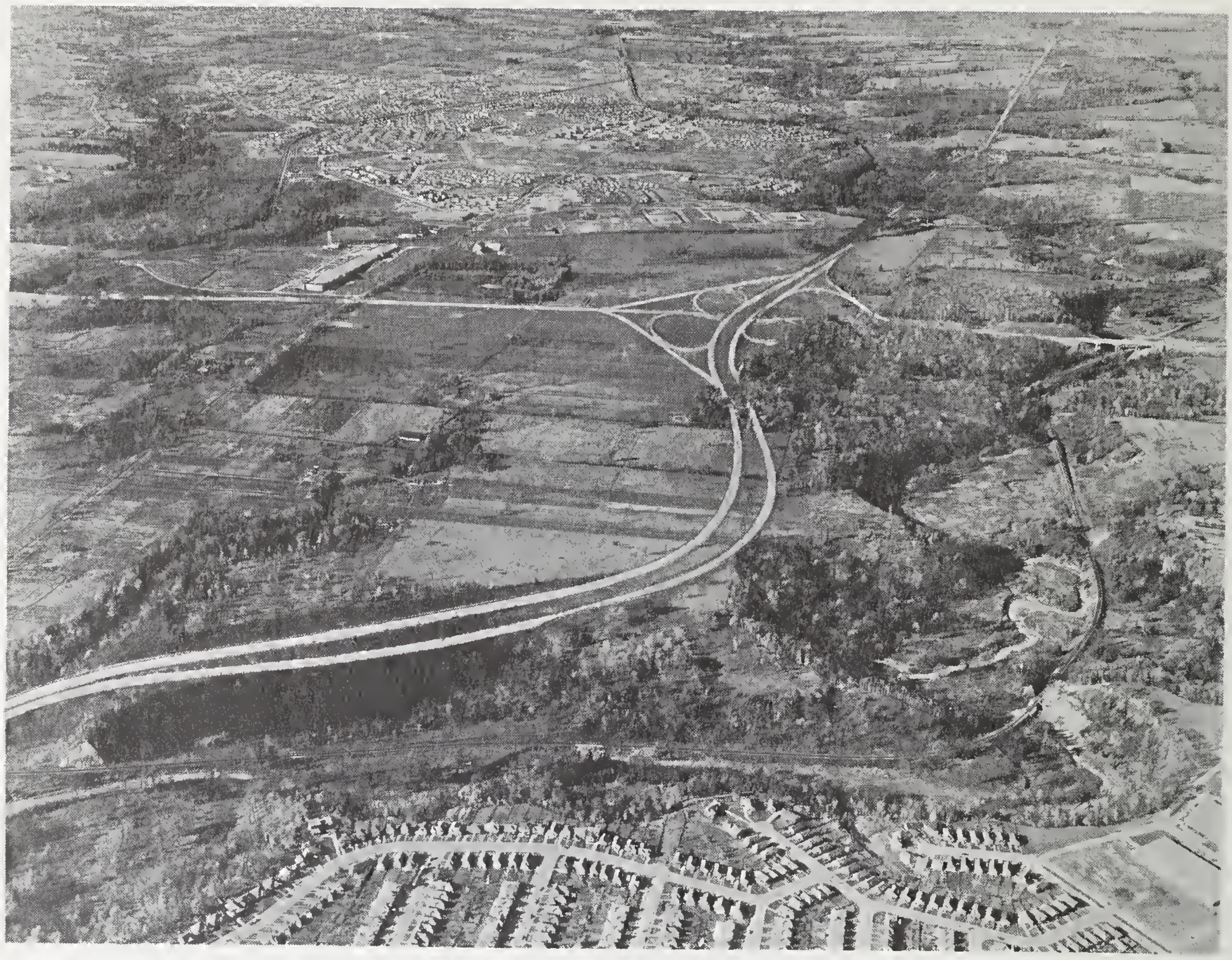
The separated roadways converge with a 10′ mall at a point west of the East York Sewage Disposal Plant proceeding easterly just south of the Plant. This is accomplished by altering the Don River alignment. The Parkway then interchanges with Don Mills Road providing a cloverleaf type connection to handle all but two of the eight traffic movements, as shown on Exhibit 14.



6. LEASIDE VIADUCT TO FORKS OF THE DON RIVER

Don Mills Road to Lawrence Avenue

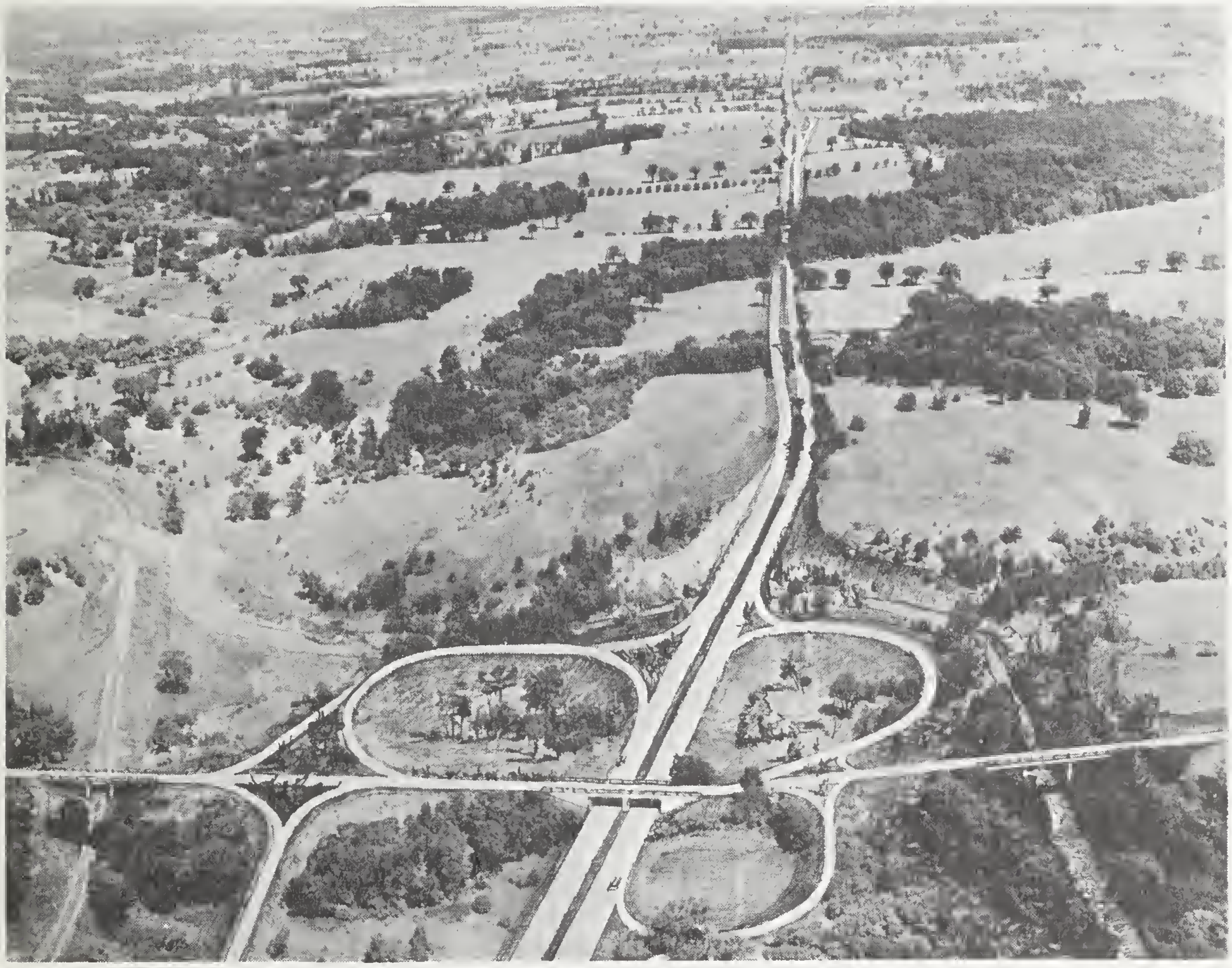
The alignment underpasses Don Mills Road at the interchange then curving to the north, crosses Taylor Creek. The crossing of the East Branch of the Don



7. EGLINTON AVENUE INTERCHANGE

River and the C.N.R. is accomplished with a single structure. The Parkway then rises along the west bank of the valley, separates horizontally and vertically, and occupies the tableland just south of the Ontario Hydro-Electric Power Commissions' Right-of-Way. The route continues northerly on the tableland's eastern periphery overlooking the valley. See Exhibit 15.

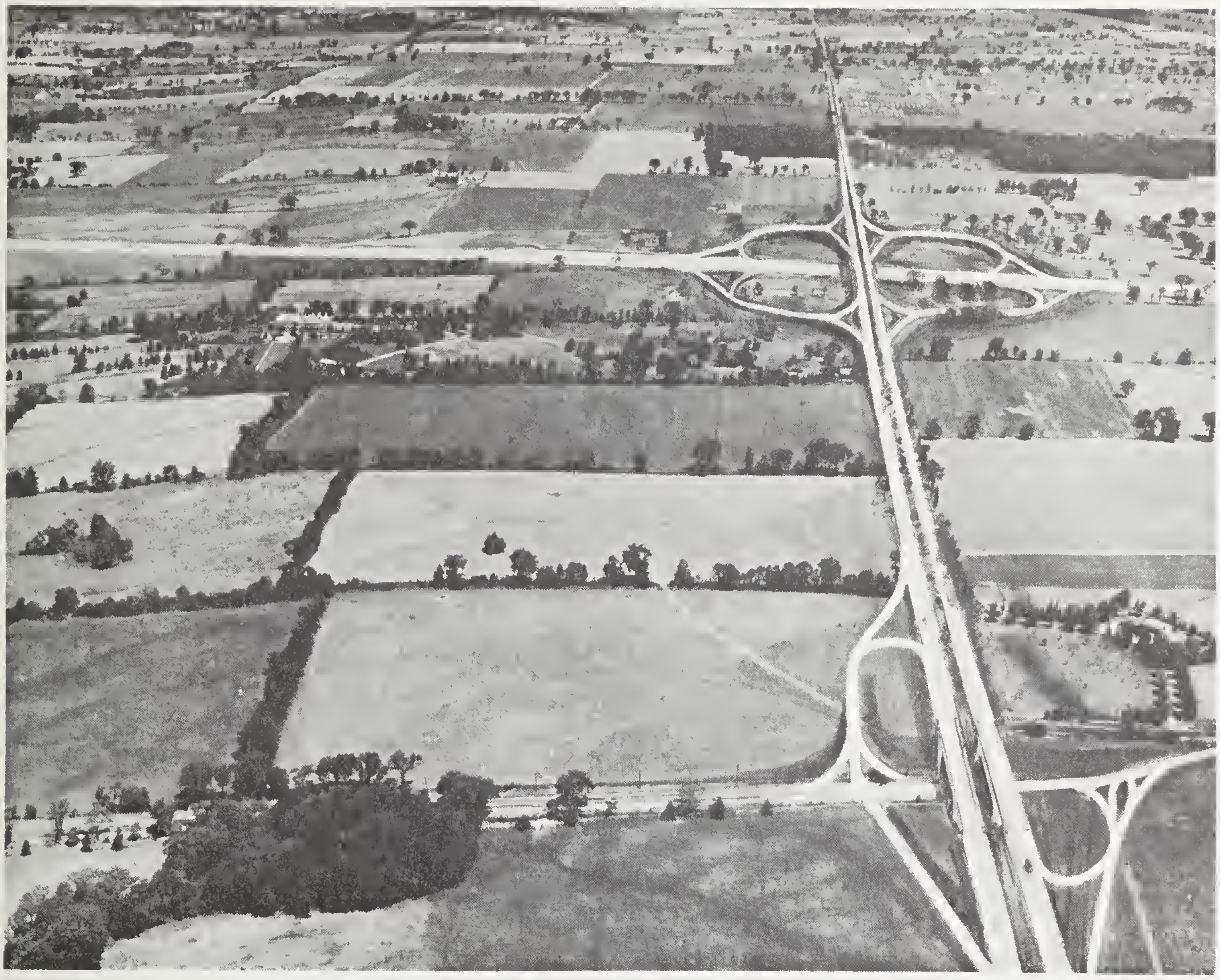
It then overpasses Eglinton Avenue interchanging all movements in a full cloverleaf pattern. The northbound and southbound lanes converge at a point south of the C.P.R. separated by a ten foot mall. Underpassing the C.P.R. the Parkway leaves the tableland and descends to the valley, passing under the C.N.R. en route to Lawrence Avenue. The C.N.R. is realigned and the Don River relocated in this vicinity. See Exhibits 16 or 17.



8. LAWRENCE AVENUE TO YORK MILLS ROAD

Lawrence Avenue to Sheppard Avenue

The Parkway passes under the recommended extension of Lawrence Avenue East, providing an interchange for all traffic movements in the valley. The required acreage for developing this interchange is effected by rerouting the Don River as indicated on Exhibit 17.



9. YORK MILLS ROAD TO SHEPPARD AVENUE

From Lawrence Avenue the alignment rises out of the valley, crosses the Don River and occupies the Woodbine Avenue Right-of-Way. The mall width has been extended to a width of thirty feet along this Right-of-Way in order to preserve much of the existing flora.

Continuing north the route overpasses York Mills Road and King's Highway 401 where a full interchange is provided. The connection at York Mills Road is designed to provide for grade separation of all major traffic movements, and by a minimum of left hand turns it adequately serves the minor movements. A reduction to two lanes in each direction is recommended between King's Highway 401 and the Parkway's terminus at the Lansing Cut-off. See Exhibit 18.

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BAYVIEW AVENUE EXTENSION

Moore Avenue to Queen Street

Originating at its intersection with Moore Avenue the extension of Bayview Avenue proceeds southerly in its present location to Stevenson Road, thence turns to the east to occupy the general route of Pottery Road. The extension requires an underpass at the 3 track C.P.R. line approximately 200 feet east of the present level crossing. That portion of Pottery Road serving Nesbitt Drive would remain as a marginal road merging with Bayview Avenue north of the aforementioned railroad crossing. The new route continues southerly underpassing the single track C.P.R. line by means of a structure, thence proceeds west of the Don River and C.N.R. and east of the C.P.R., underpassing the C.P.R. trestle in the bay just north of that occupied by the C.N.R. Pottery Road is joined to Bayview Avenue by a T-intersection in the vicinity of the former's Don River crossing. In this vicinity, three oil pipe lines are relocated because of interferences.

The line proceeds westerly across the southerly limits of the Toronto Brick Works with the demolition of a row of kilns, now inoperative but used for storage. It is suggested that lands east of the existing Bayview Avenue allowance now owned by the City of Toronto be leased to the Brick Company as replacement for the loss of usable storage area.

Continuing south, the proposed Bayview Extension underpasses the DON VALLEY PARKWAY-Bloor Street ramp with an interchange to provide movements to and from the Parkway, north and south on Bayview. It proceeds southerly under the Prince Edward Viaduct to connect with Rosedale Valley Drive. This intersection provides both on and off traffic movements. Continuing south to Winchester Street, provision is made for southbound egress only. Now occupying the West Don Roadway this route parallels the railway to Gerrard Street. Here a ramp takes traffic westerly through the southern extremity of Riverdale Park to the northern terminus of River Street. In order to provide two-way movement on River Street north of Gerrard Street the former is widened, taking the land and houses along the west side. Traffic is introduced at River Street, in order to direct southerly movement to the major east-west arteries. This serves Gerrard and Dundas Streets.

A southbound lane is provided from Gerrard to King Street. This lane, having a minimum width of 18′ occupies the West Don Roadway, underpassing Gerrard, Dundas and Queen Streets. Four railway sidings are crossed at street level enroute. The Bayview Extension terminates at the origin of King Street. Northbound access to Bayview is permitted via River Street just north of Gerrard Street. Northbound access to the DON VALLEY PARKWAY is available at the Queen Street and Dundas Street Ramps.

VIII—PARKING

The DON VALLEY PARKWAY will serve as an express route to and from the core of the city. The problem of handling the movement of traffic generated by this facility is two-fold, namely efficient distribution of vehicles via city streets to and from their destination, and off-street parking facilities adequate to accommodate the all day commuter demand.

The former problem demands a dispersion pattern whereby the peak loads can be handled by offering the motorist a choice of several good routes which will be used as a result of experience and education. Traffic will always develop a pattern of distribution resulting in a relief of congestion provided the alternate routes are made available. The proposed projection of Bayview Avenue south will provide such facilities.

The parking problem must be met if general congestion in the core of the city is to be avoided. The transient parker is inconvenienced by the lack of facilities and loses valuable time in search of space. The result is further congestion, double parking and illegal parking.

The Parking Authority of Toronto, established in June, 1952, is cognizant of the problems facing the city and have in operation and under construction a broad program contributing toward a sound solution. It is imperative that the DON VALLEY PARKWAY Project be integrated into the planning of this agency so that it may complement rather than damage the program already under way.

We recommend serious consideration of three commuter parking sites to be developed in conjunction with the Parkway, and the recommended Bayview Avenue Extension:

Site A

An initial commuter parking area to accommodate some 1,500 cars in the Don Valley, adjacent to and east of the C.N.R. tracks, just north of the Prince Edward Viaduct. Available acreage would permit ultimate expansion to some 4,000 cars, as required. The relatively low cost of land acquisition and modest physical improvements at this location would permit nominal parking fees and encourage motorists to leave their vehicles at this point and proceed to downtown and uptown destinations by express public transit.

An express bus service between the parking lot and the Bloor Street subway station would appear feasible until a rapid transit system is constructed along

Bloor Street. When rapid transit is available direct access can be provided to this parking area. Should Bayview Avenue be extended southerly on the west bank of the river, as recommended, the T.T.C. should be encouraged to establish a direct bus service on such an artery. A loading station at the parking site would conveniently serve these commuters.

Site B

We recommend establishment of a commuter parking area in the block immediately northwest of the intersection of Gerrard and River Streets in conjunction with the Bayview Avenue Extension. The area is immediately adjacent to the Gerrard Street streetcar service to the subway. This parking lot, of a 200 car capacity, would have the advantage of serving commuter parkers during the day and being available for parking as an extension of the Riverdale Park and Zoo during evenings and weekends. At present, public parking facilities in the vicinity of the Riverdale Zoo are inadequate.

Site C

We recommend that a commuter parking station in conjunction with the Bayview Avenue Extension be established on lots immediately north of the intersection of Queen and King Streets, on the west bank of the Don River. Such a parking facility would accommodate 500 cars and would be readily accessible to the present public transit system on Queen and King Streets.

IX—ESTIMATE OF COST

In determining the estimated cost of the Parkway as outlined below, current prices and land evaluations have been used.

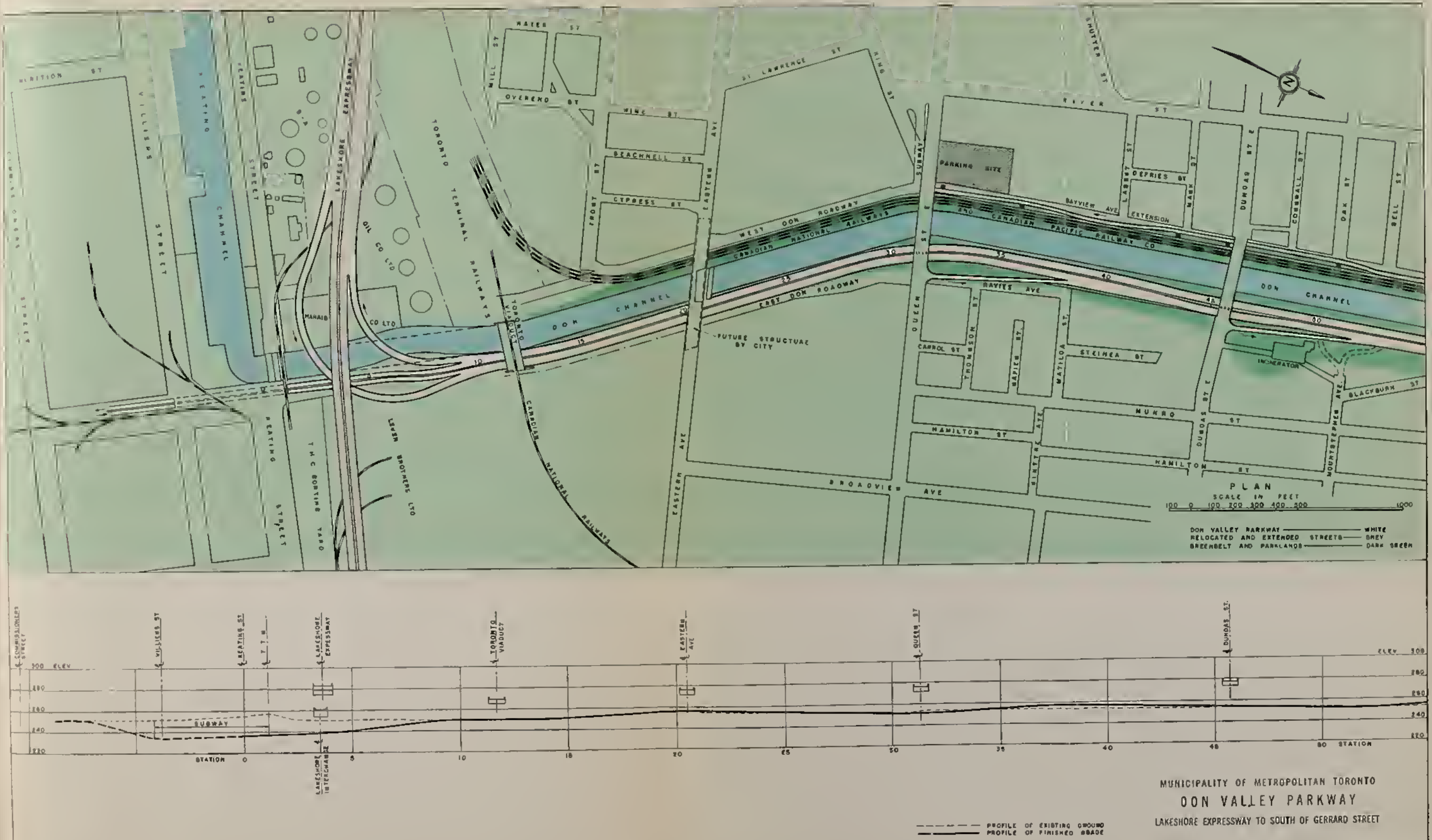
The cost of providing for maintenance, reconstruction and relocation of utilities is the result of discussions with, and estimates supplied by, the various civic departments and utility companies involved.

The cost of Right-of-Way, based on estimates supplied by the City of Toronto Real Estate Division, provides for the purchase of public as well as private lands. Business damages to properties adjacent to the proposed route have also been taken into account.

It should be noted that the estimated cost of structures includes $1,500,000 for The Municipality of Metropolitan Toronto's share of the Eastern Avenue Grade Separation as proposed by the City of Toronto.

Don Valley Parkway

Construction Cost			
Structures	$ 7,200,000		
Grading, Drainage, Paving, Lighting	6,980,000		
Keating Street Subway	750,000	$14,930,000	
Site Surveys, Soil Investigation, Design, Field Layout, Supervision of Construction, Inspection Services and Contingencies		2,800,000	
Utility and Railway Work		991,000	
Right-of-Way Acquisition (Including Business Damage)		4,733,000	$23,454,000
Lawrence Avenue Improvement		$ 1,330,000	
Bayview Avenue Extension		2,790,000	
Parking (Including Property at Site C)		300,000	
Engineering and Contingencies		800,000	5,220,000
			$28,674,000



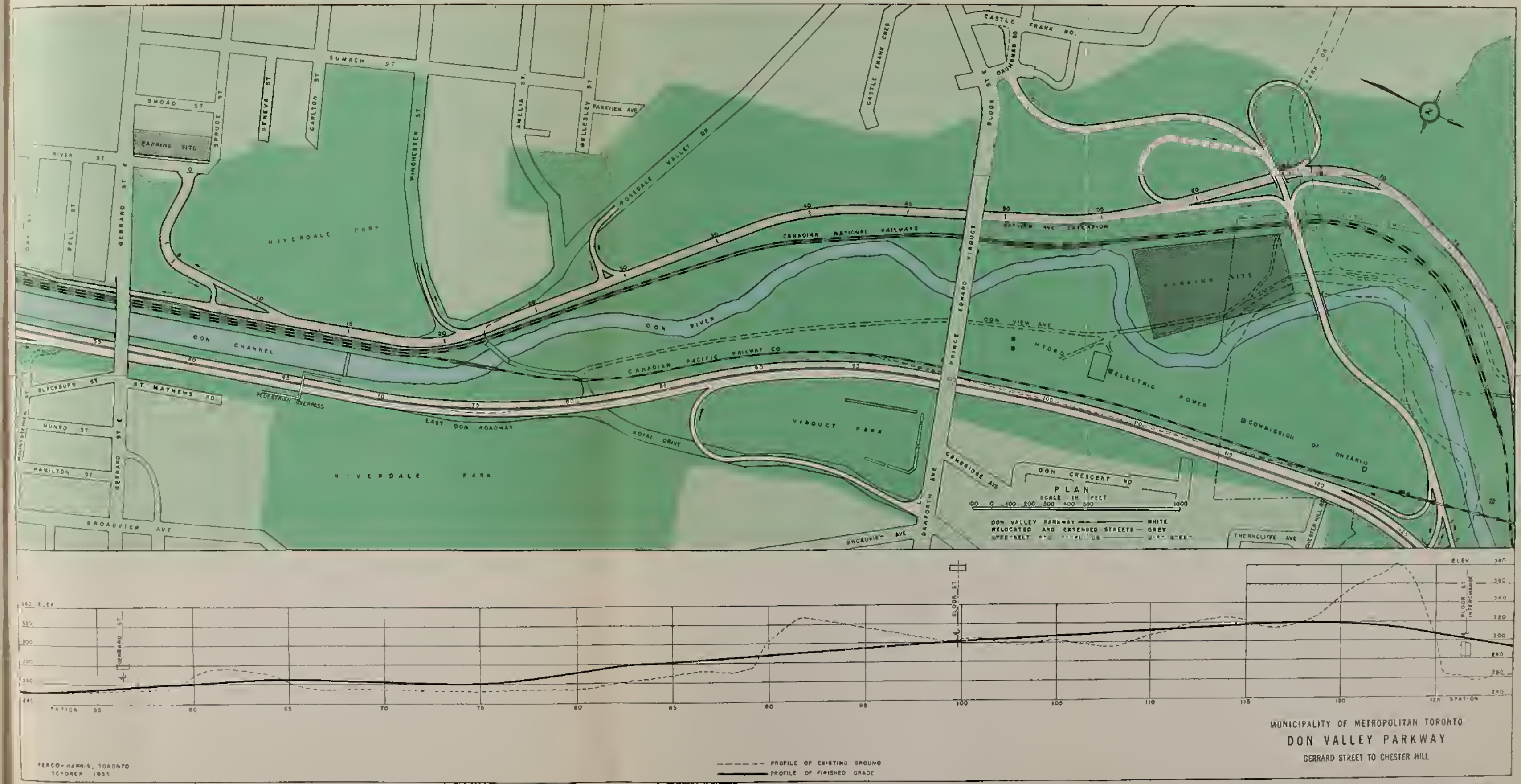
MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

LAKESHORE EXPRESSWAY TO SOUTH OF GERRARD STREET

FENCO - HAAGIS, TORONTO
OCTOBER 1958

EXHIBIT 10

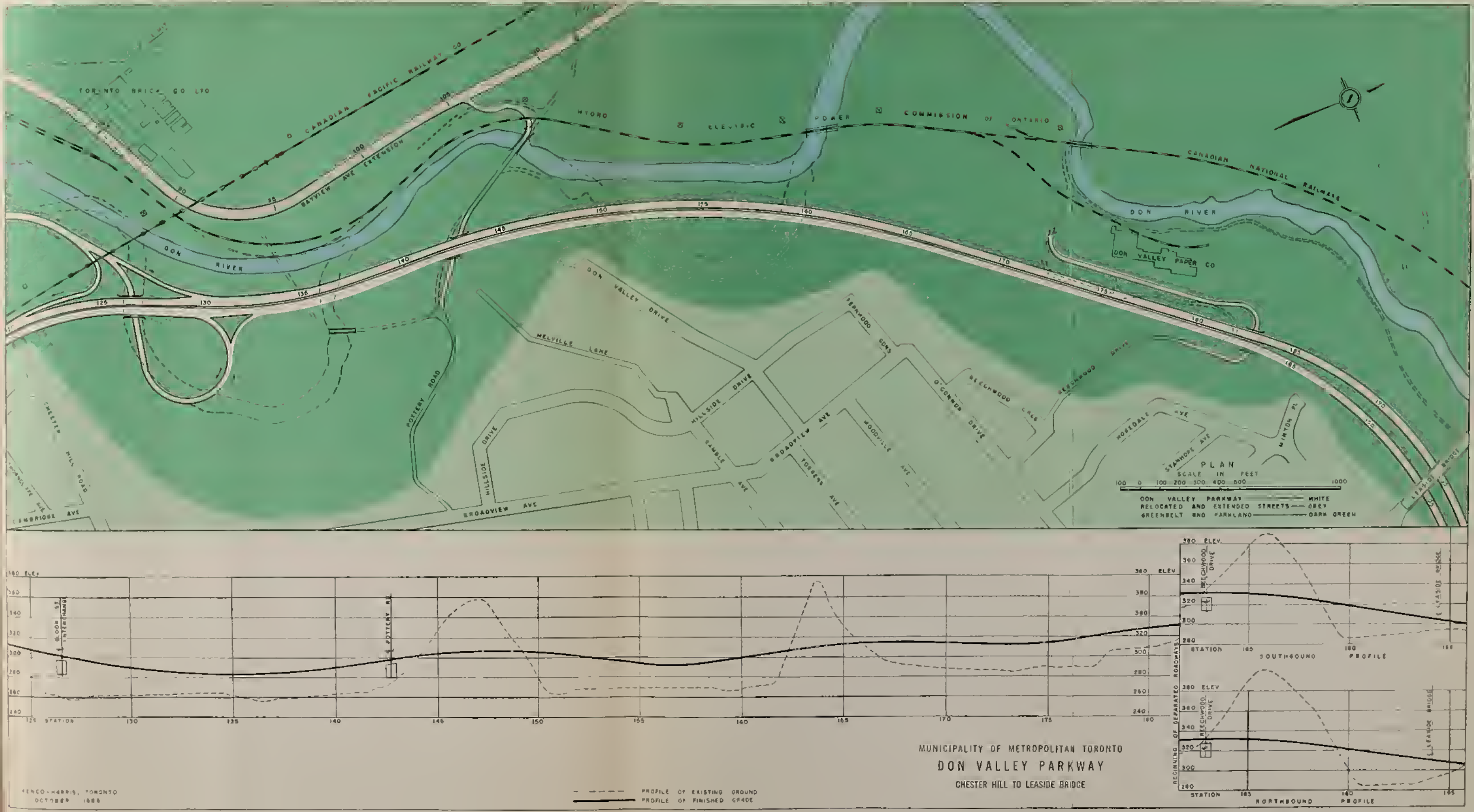


MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

GERRARD STREET TO CHESTER HILL

EXHIBIT 11

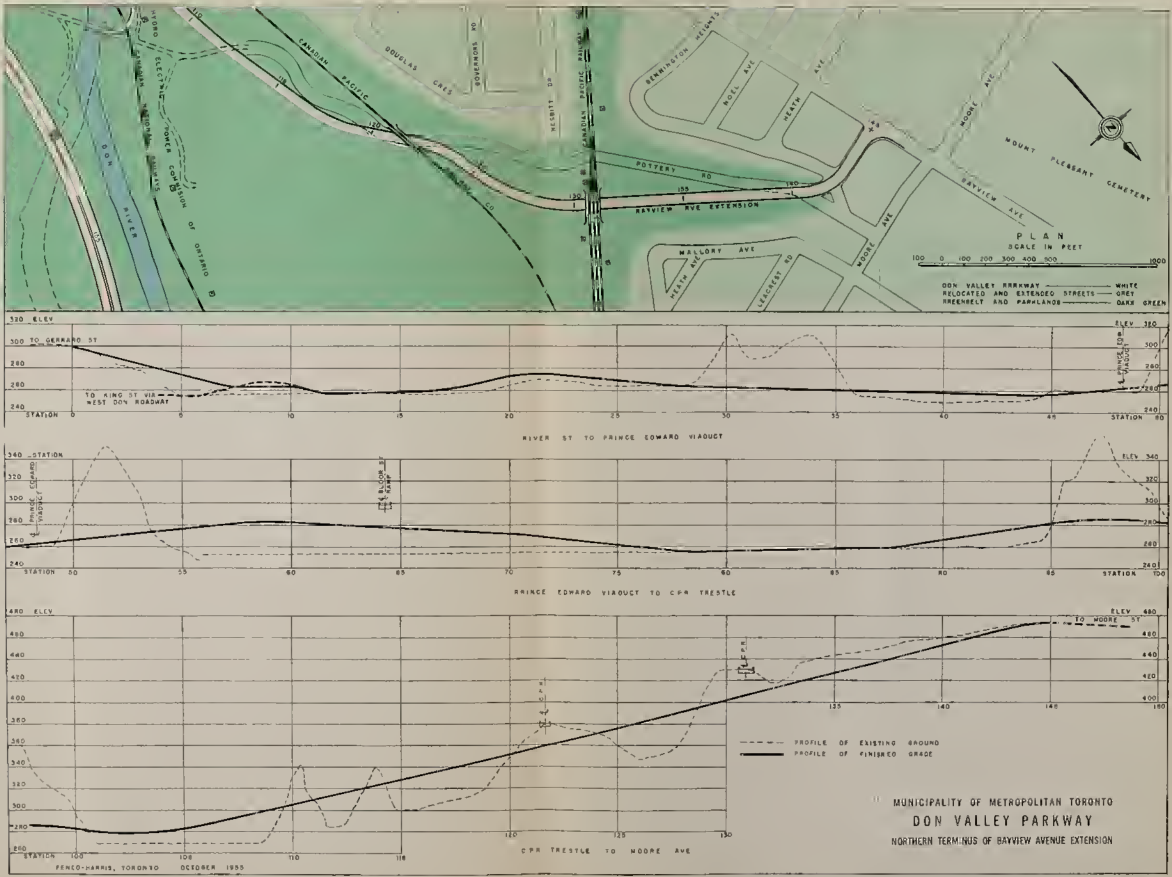


MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

CHESTER HILL TO LEASIDE BRIDGE

EXHIBIT 12

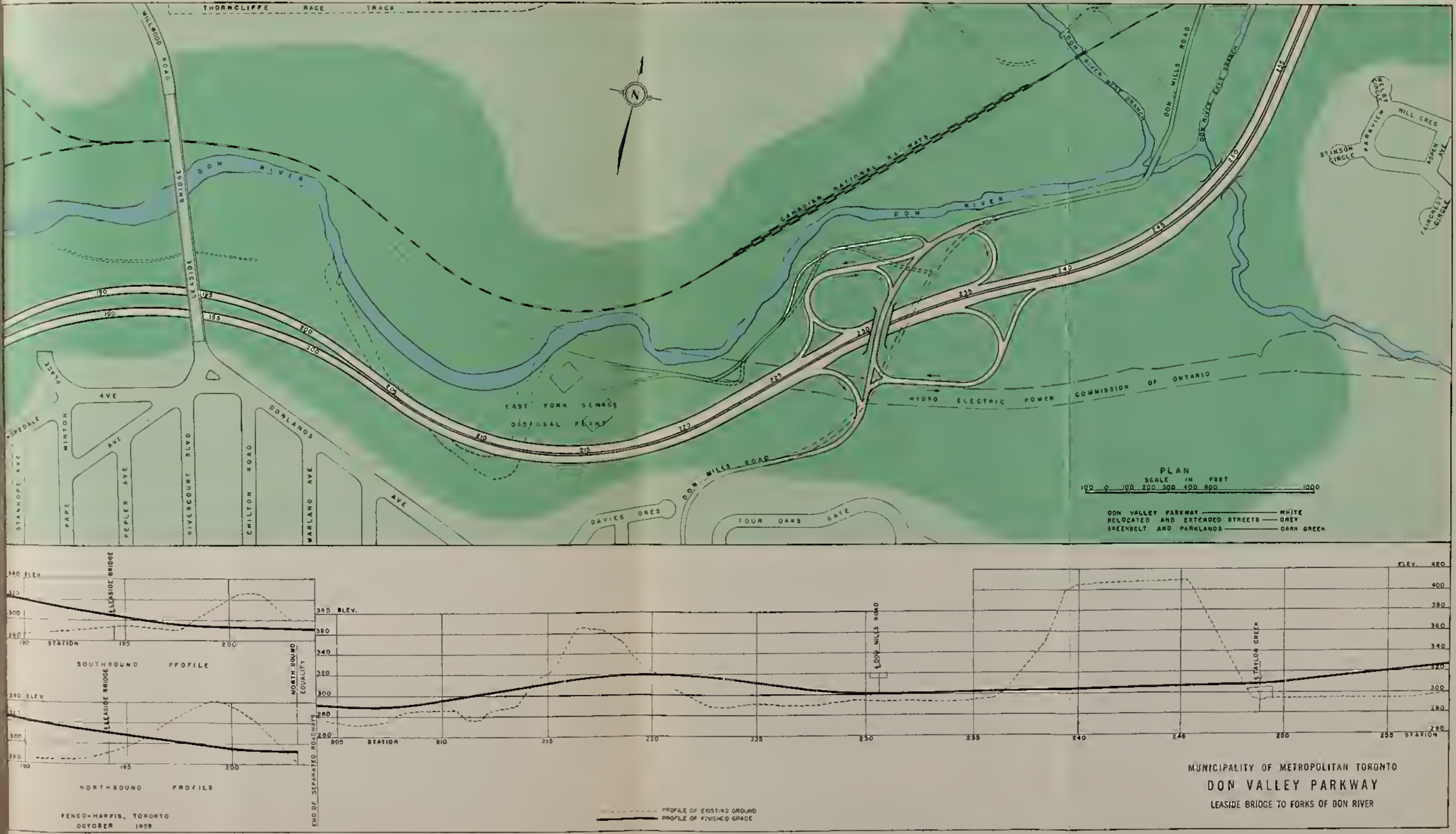

HYDRO ELECTRIC POWER COMMISSION OF ONTARIO
CANADIAN NATIONAL RAILWAYS
DON RIVER
CANADIAN PACIFIC
DOUGLAS CRES
GOVERNORS RD
NESBITT DR
CANADIAN PACIFIC RAILWAY
BENNINGTON HEIGHTS
NOEL AVE
HEATH AVE
MOORE AVE
MOUNT PLEASANT CEMETERY
POTTERY RD
BAYVIEW AVE EXTENSION
BAYVIEW AVE
MALLORY AVE
HEATH AVE
LEACREST RD
MOORE AVE
110
115
120
125
130
135
140
145
PLAN
SCALE IN FEET
100 0 100 200 300 400 500 1000
DON VALLEY PARKWAY — WHITE
RELOCATED AND EXTENDED STREETS — GREY
GREENBELT AND PARKLANDS — DARK GREEN
320 ELEV
TO GERRARD ST
TO KING ST VIA WEST DON ROADWAY
PRINCE EDWARD VIADUCT
STATION 0 5 10 15 20 25 30 35 40 45 STATION 50
RIVER ST TO PRINCE EDWARD VIADUCT
340 STATION
PRINCE EDWARD VIADUCT
BLOOR ST RAMP
ELEV 340
STATION 50 55 60 65 70 75 80 85 90 95 STATION 100
PRINCE EDWARD VIADUCT TO CPR TRESTLE
480 ELEV
ELEV 480
TO MOORE ST
C P R
C P R
PROFILE OF EXISTING GROUND
PROFILE OF FINISHED GRADE
STATION 100 105 110 115 120 125 130 135 140 145 150
CPR TRESTLE TO MOORE AVE
FENCO-HARRIS, TORONTO OCTOBER 1955

MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

NORTHERN TERMINUS OF BAYVIEW AVENUE EXTENSION

EXHIBIT 13



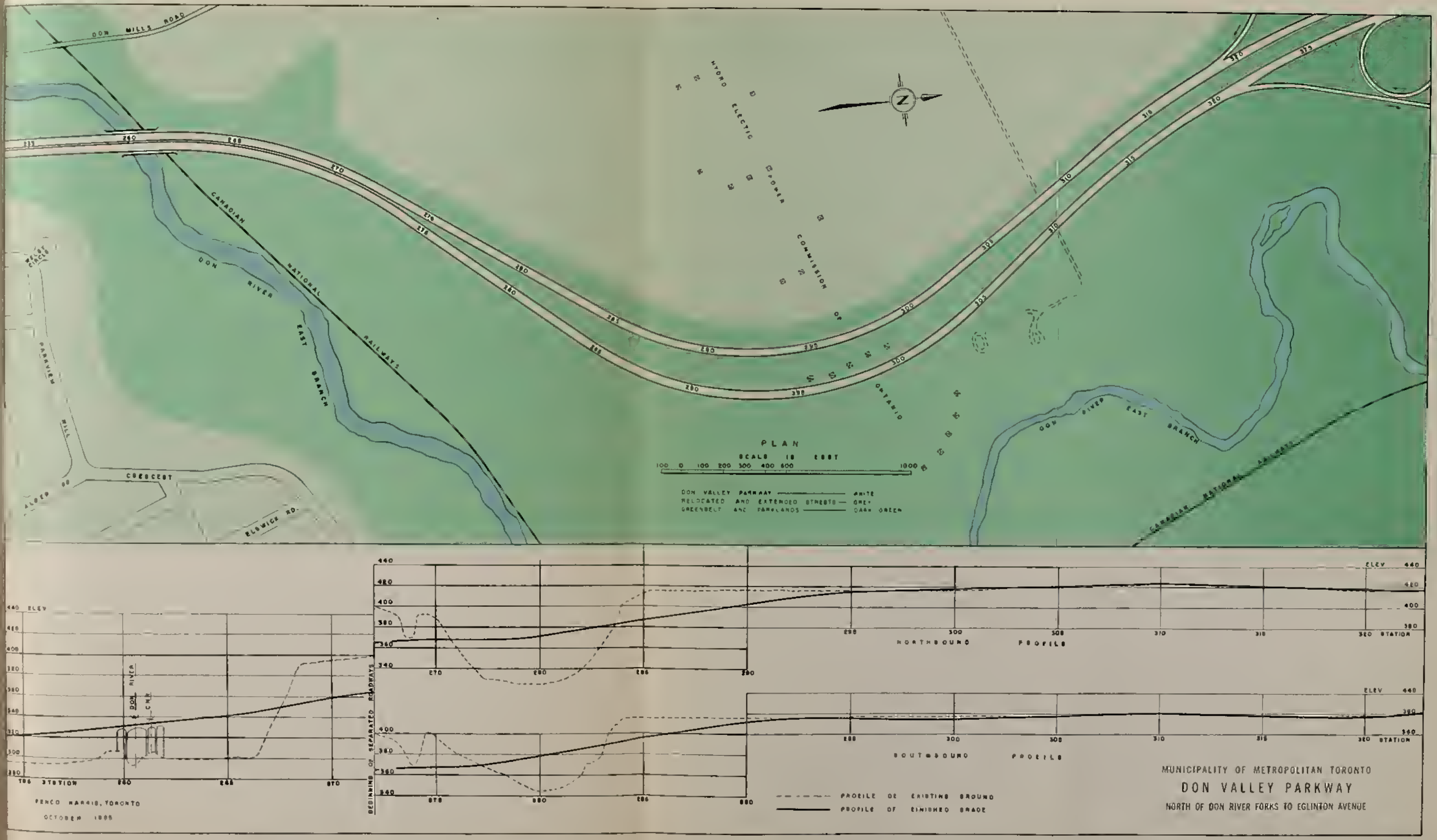
FENCO-HARRIS, TORONTO
OCTOBER 1958

MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

LEASIDE BRIDGE TO FORKS OF DON RIVER

EXHIBIT 14

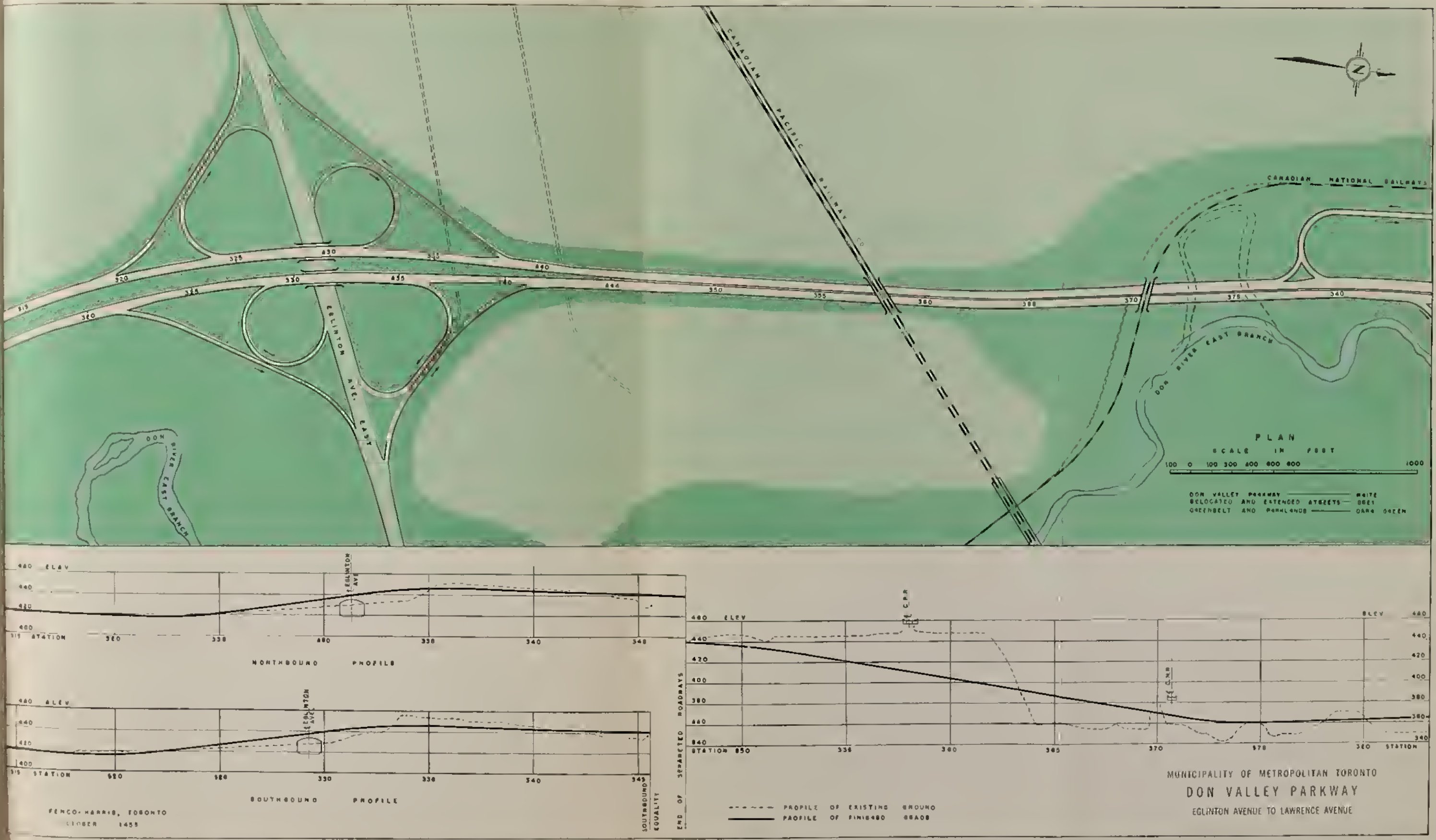

DON MILLS ROAD
CANADIAN NATIONAL RAILWAYS
DON RIVER EAST BRANCH
HYDRO ELECTRIC POWER COMMISSION OF ONTARIO
Z
WESLEY CIRCLE
PARKVIEW HILL
CRESCENT
ALDER RD
ELSWICK RD.
PLAN
SCALE IN FEET
100 0 100 200 300 400 600 1000
DON VALLEY PARKWAY — WHITE
RELOCATED AND EXTENDED STREETS — GREY
GREENBELT AND PARKLANDS — DARK GREEN
ELEV
STATION
DON RIVER
C.N.R.
BEGINNING OF SEPARATED ROADWAYS
NORTHBOUND PROFILE
SOUTHBOUND PROFILE
PROFILE OF EXISTING GROUND
PROFILE OF FINISHED GRADE
FENCO HARRIS, TORONTO
OCTOBER 1955

MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

NORTH OF DON RIVER FORKS TO EGLINTON AVENUE

EXHIBIT 15

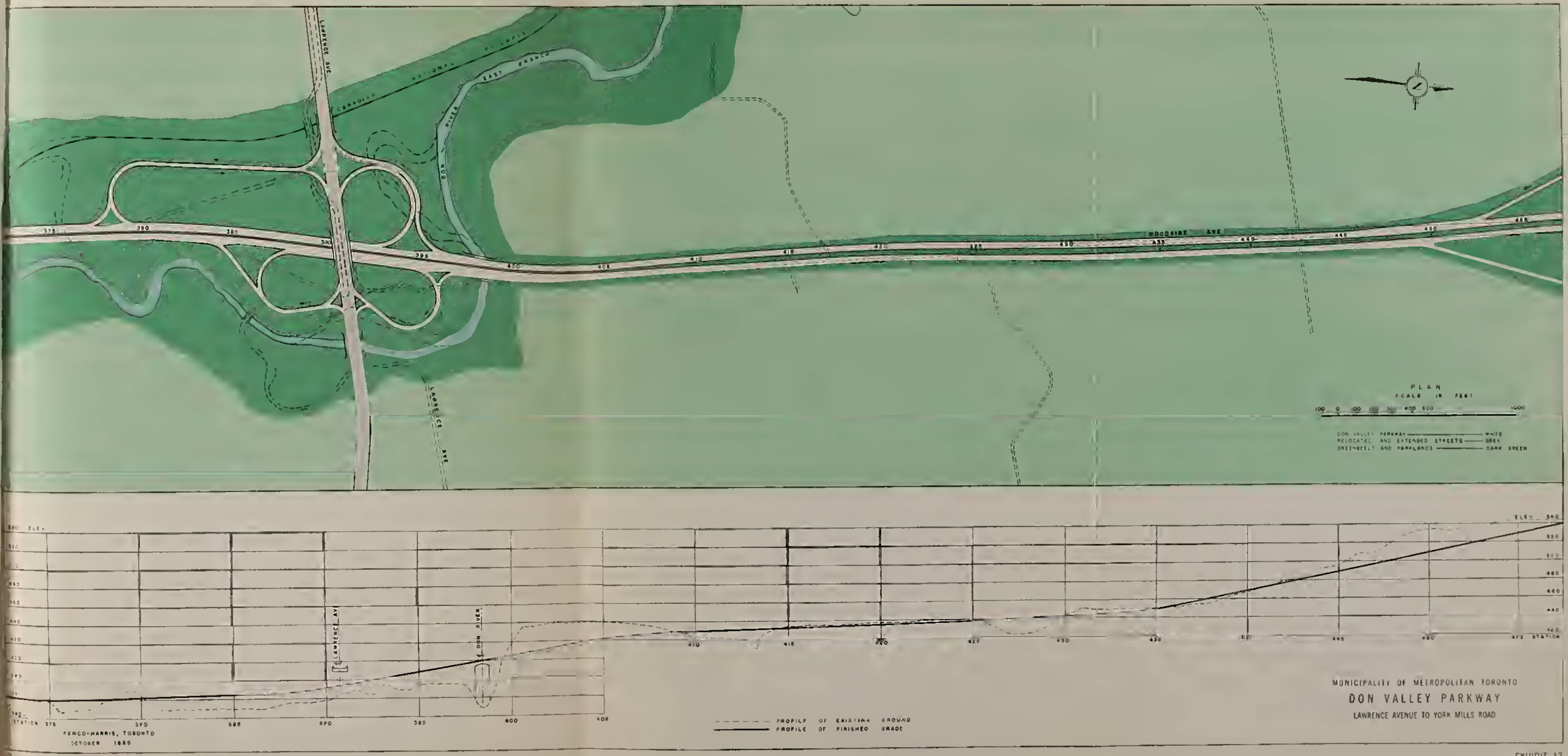


MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

EGLINTON AVENUE TO LAWRENCE AVENUE

EXHIBIT 16

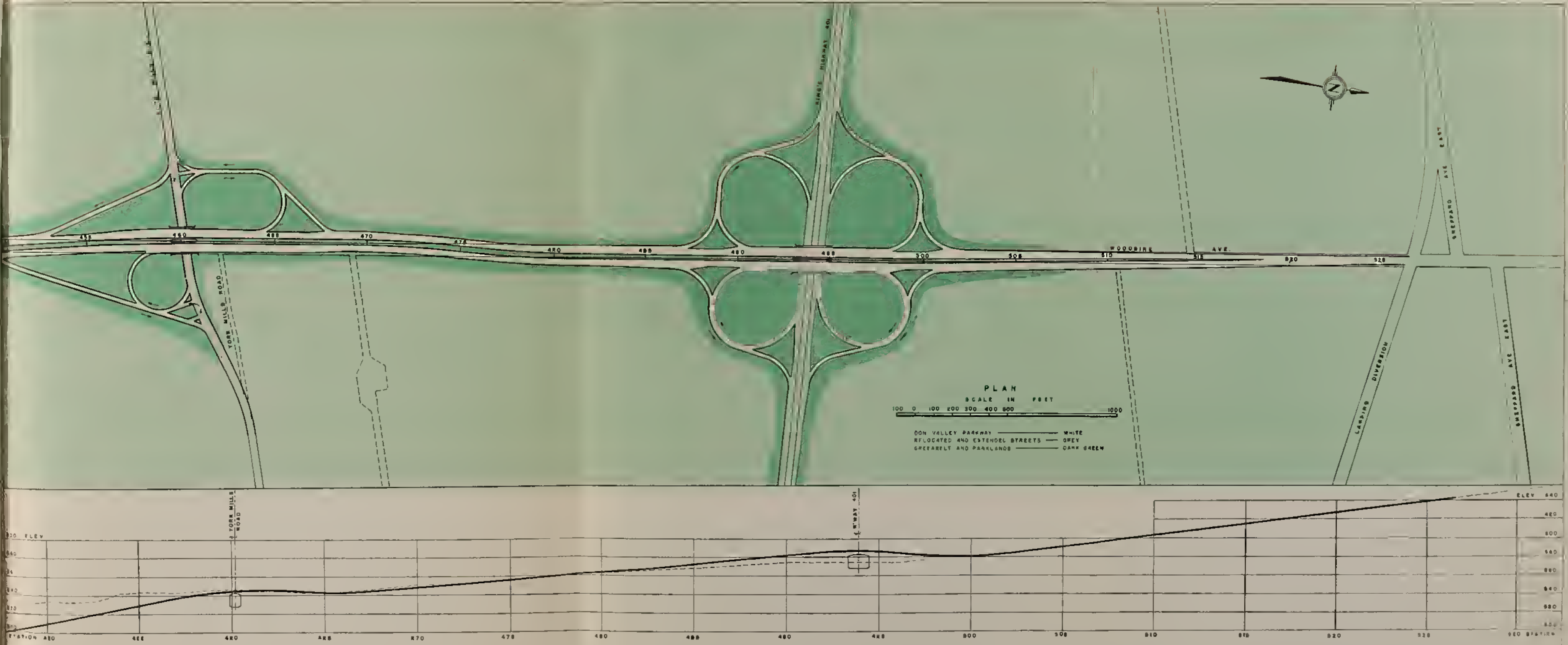


MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

LAWRENCE AVENUE TO YORK MILLS ROAD

EXHIBIT 17



PROFILE OF EXISTING GROUND

PROFILE OF FINISHED GRADE

FENCO HARRIS, TORONTO

OCTOBER 1955

MUNICIPALITY OF METROPOLITAN TORONTO

DON VALLEY PARKWAY

YORK MILLS ROAD TO SHEPPHARD EAST

EXHIBIT 18

IMRE J. J. KOROKNAY

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